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UNITED STATES DISTRICT COURT FOR THE EASTERN DISTRICT OF TEXAS LUFKIN DIVISION

AS TX EASTERN - LUFKIN

UNITED STATES OF AMERICA	``
ex rel., HARROLD E. WRIGHT,) THIRD AMENDED COMPLAINT
STATE OF NEW MEXICO, and) THIRD AMENDED COMPLAINT
JOHN CHAVEZ) CIVIL ACTION NO.9-98CV30
JOHN CHAVEZ) CIVIL ACTION (10.3-38C V30
PLAINTIFFS)
) JURY TRIAL DEMANDED
V.)
)
CHEVRON USA INC.)
CHEVRON CORPORATION)
AMOCO CORPORATION)
ANADARKO PETROLEUM)
CORPORATION)
ATLANTIC RICHFIELD COMPANY)
BP AMOCO CORPORATION)
BP EXPLORATION & OIL, INC.)
BURLINGTON RESOURCES, INC.)
BURLINGTON RESOURCES OIL	
AND GAS CO.)
CNG PRODUCING COMPANY)
CONOCO, INC.)
DEVON ENERGY CORPORATION)
DYNEGY, INC.)
ELF EXPLORATION, INC.)
ENRON CORPORATION)
ENRON OIL AND GAS COMPANY)
EXXON COMPANY USA)
EXXON CORPORATION)
FINA OIL AND CHEMICAL COMPANY)
KERR-McGEE CORPORATION)
KERR-McGEE OIL & GAS)
CORPORATION)
LOUISIANA LAND AND)
EXPLORATION CO.)
MARATHON OIL COMPANY)
MOBIL CORPORATION)
MOBIL EXPLORATION &)
PRODUCING U.S. INC.)
MOBIL OIL EXPLORATION &)

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PRODUCING SOUTHEAST, INC.)
MOBIL CALIFORNIA EXPLORATION)
AND PRODUCING ASSET COMPANY)
MOBIL OIL CORPORATION)
MOBIL PRODUCING TEXAS &)
NEW MEXICO)
NORCEN EXPLORER, INC.)
OCCIDENTAL PETROLEUM)
CORPORATION)
OCCIDENTAL OIL AND GAS)
CORPORATION)
ORYX ENERGY COMPANY)
OXY USA, INC.)
PHILLIPS PETROLEUM COMPANY)
SAMEDAN OIL CORPORATION	Ĺ
SHELL OIL COMPANY	Ĺ
SHELL OFFSHORE, INC.)
SHELL FRONTIER OIL AND GAS)
SHELL WESTERN EXPLORATION AND	Ĺ
PRODUCTION COMPANY)
SHELL DEEPWATER)
PRODUCTION, INC.)
SHELL WESTERN EXPLORATION AND	í
PRODUCTION, INC.	Ĺ
TEXACO, INC.	Ĺ
TEXACO EXPLORATION AND	Ĺ
PRODUCTION	Ĺ
TOTAL FINA S.A.	Ĺ
TOTAL MINATOME CORPORATION	í
TOTAL EXPLORATION PRODUCTION	í
USA, INC.	í
UNION OIL COMPANY OF	Ĺ
CALIFORNIA	í
UNION PACIFIC RESOURCES GROUP	í
VASTAR RESOURCES	í
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DEFENDANTS) }
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THIRD AMENDED COMPLAINT

Relators Harrold E. (Gene) Wright, the State of New Mexico, and John Chavez bring this action on behalf of the United States and on their own behalf, and allege as follows:

I. INTRODUCTION

- 1. This action is filed by relators Harrold E. (Gene) Wright, the State of New Mexico and John Chavez under the qui tam provisions of the False Claims Act, 31 USC § 3729 et seq.
- 2. On March 28, 2000, the United States of America joined in this action as to following three groups of affiliated defendants: (i) the Mobil group of affiliated defendants, Mobil Oil Corporation, Mobil Oil Exploration and Production, Mobil Oil Exploration & Producing North America, Inc., Mobil Producing Texas & New Mexico, Inc. and Mobil Oil Exploration and Producing Southeast, Inc.; (ii) the Meridian/Burlington group of affiliated defendants, Meridian Oil, Inc. and Meridian Oil Production, Inc.; and (iii) the Shell group of affiliated defendants, Shell Oil Company, Shell Consolidated Energy Resources, Inc., Shell Frontier Oil & Gas, Inc., Shell Gas Pipeline Company, Shell Land & Energy Company, Shell Offshore, Inc., Shell Pipeline Corporation and Shell Western E&P Inc. The United States filed a complaint against the Mobil and Burlington defendants on May 31, 2000 ("the Government's complaint)". The United States has not yet filed a complaint against the Shell defendants.
- 3. In this complaint, Relators seek recovery of damages and civil penalties on behalf of the United States of America arising from false and/or fraudulent statements and records made, and caused to be made, to conceal, decrease or avoid obligations to pay royalties owed to the United States Government for natural gas ("gas") and natural

gas liquids ("NGLs") produced by Defendants from federal and Indian lands. These royalty underpayments violate 31 U.S.C. § 3729(a)(7).

- 4. Relators do not seek recovery through this complaint from the Mobil defendants for wrongdoing alleged in the Government's complaint. Relator Wright does not seek recovery through this complaint from the Burlington defendants for wrongdoing alleged in the Government's complaint. Relators New Mexico and John Chavez seek no recovery from the Burlington defendants.
- 5. Relators understand that the United States plans to file a complaint against the Shell defendants later this year, and therefore seek recovery from Shell only for allegations contained in paragraphs 141 through 159 and paragraphs 216 through 227.
- 6. Relators also seek no recovery any damages or underpayment of royalties relating to gas and NGL production from the Alabama-Coushatta Indian Reservation in Polk County, Texas.

II. PARTIES

Relator Wright

- 7. Relator Harrold E. (Gene) Wright ("Wright") resides in the Eastern

 District of Texas. He has been engaged in the production, marketing and sale of gas and

 NGLs for fifty years. During his career, he has been an employee, an officer and an

 owner of independent gas/NGL production companies. Throughout his professional life,

 Relator Wright has been involved in matters related to the pricing of gas and NGLs, and
 the calculation of royalty payments, and has gained experience and knowledge of
 defendants' improper royalty valuation practices.
 - a. Mr. Wright Was Underpaid Royalties On Properties Where The Federal Government Also Held Royalty Interests

- 8. Since 1964, Relator Wright has owned gas/NGL royalty interests in Lincoln County, Wyoming in the "Overthrust Belt" area of the Greater Green River Basin. The primary market for gas produced in this area is the U.S. West Coast, particularly San Francisco and other areas of California. Some of Wright's royalty interests in the Overthrust Belt have been communitized with adjoining federal royalty interests into "federal gas units." The oil and gas leases in these federal gas units were, and continue to be, owned by Amoco Production Co., Sohio (now BP Amoco), Union Pacific Resources Co. (now Union Pacific Resources Group), Conoco, Inc., and Marathon Oil Co. All of these are defendants in this action.
- 9. By virtue of the communitization, Wright and the federal government were effectively made co-lessors of a lease of a single property (the communitized area). Likewise, Amoco, Sohio, UPRG and Marathon were effectively made co-lessees of the communitized area. Royalty owners in a communitized tract such as Mr. Wright and the federal government are always paid royalty on the same basis.
- During the period at issue, Mr. Wright compared his gas/NGL royalty payments from Amoco, Sohio, UPRG and Marathon with published market prices in California. After deducting applicable transportation and other costs, Mr. Wright determined that these defendants underpaid his and the federal government's royalties based on prices that were below the prevailing market value.
- 11. Similarly, since 1964, Mr. Wright has owned, and continues to own, producing gas/NGL royalty interests in the giant East Texas Field the largest oil field ever discovered in the contiguous 48 states. The federal government also owns, and has owned, producing gas and NGL royalty interests in the same East Texas Field.

- 12. Wright's royalty interests have been, and are, under leases operated and co-owned by defendants (and/or their affiliates) Exxon Corp, Chevron U.S.A., Inc., Amoco Production Co., Mobil Oil Corp., Shell Western Exploration & Production, Inc., Texaco, Inc., Arco-Permian Unit of Atlantic Richfield Co., OXY USA, Inc., and Oryx Energy Co. among others. Over a long period of time, all these defendants have underpaid Wright's gas and NGL royalties by undervaluing East Texas Field gas and NGL production below market value, and basing the royalty payments on amounts less than the gross proceeds accruing to the defendant-lessees. Relator Wright has been and continues to be injured by the unlawful practices described in this complaint.
- 13. The federal government has been injured by the defendants' underpayment of gas and NGL royalties in the East Texas Field in the same manner as Mr. Wright. Texas common purchaser statutes prohibit defendants from discriminating between royalty owners in the same field. In addition, it is the practice of these defendants to make payments to all royalty owners in the same field on the same basis, and generally to make royalty payments on the same basis, be it company-wide or statewide.
- 14. Since 1964, Mr. Wright also has owned other producing gas and NGL royalty interests in Louisiana, Colorado, Wyoming, Montana, New Mexico, South Dakota and Texas, as to which various of the defendants have consistently paid him less than the market value of his gas and NGL royalty production, and less than their gross proceeds from the sale of Mr. Wright's gas and NGL production.
 - b. Mr. Wright Also Learned Of Defendant Exxon's Royalty
 Underpayment Practices As A Royalty Interest Owner Of Exxon
 Field Production

- 15. Relator Wright was also specifically affected by defendant Exxon's improper royalty valuation practices. Exxon operates and leases gas wells in the Delrose Gas Field in Upshur County, Texas. Mr. Wright has owned royalty interest in the Exxonoperated Delrose Gas Units since before 1986.
- based on an "Exxon Field Price" that was established by a "Management Committee" of Exxon officials. Although Mr. Wright's Delrose Field leases provided that Exxon pay royalty based on the market value of gas and NGLs, the Management Committee assigned prices to Relator Wright's lease that were at least 25 percent below the spot market and substantially below Exxon's actual sales prices. Mr. Wright vociferously contested Exxon's royalty valuation. Although Exxon eventually increased the "market value" of gas production for royalty valuation purposes, Exxon's pricing of Delrose Field production has never included a proper valuation of the NGLs produced from the property.
- 17. Mr. Wright also owns royalty interests in wells operated by Exxon in other Texas gas fields. These include the Clark and Anahuac Fields in Chambers County, the Katy Field in Waller County, the East Texas Field in Gregg County, the Conroe Field in Montgomery County, and an additional field in Franklin County. Throughout the period at issue, Exxon has underpaid royalties owed to Mr. Wright on production from these fields as well. Upon information and belief, Exxon continues to base royalty payments to other interest owners on below-market "Exxon field prices" as determined by a "Management Committee."
 - c. Mr. Wright Also Learned Of Defendants' Fraudulent
 Practices Through Professional Affiliations

- In 1978, Wright was elected to the Executive Committee of the Natural Gas Supply Association ("NGSA") and in 1979 and 1980 he served as the representative of the Independent Petroleum Association of America to NGSA. The NGSA is the Washington, D.C. based organization (formerly part of the American Petroleum Institute the "API") which represents the nation's major gas and NGL producers. NGSA's membership accounts for more than 95 percent of the nation's total natural gas/NGL production.
- 19. In 1981 and 1982, Wright was elected to serve as Vice-Chairman of the NGSA, and in 1982 and 1983, he was elected and served as the Association's Chairman. Mr. Wright was, and remains, the only independent operator ever to be elected by the nation's major oil and gas companies to head that organization. Wright continued to serve actively on the Executive Committee of the NGSA through 1987. From 1978 through 1987, Wright was instrumental in helping secure passage of the Natural Gas Policy Act of 1978 and its important amendments.
- 20. During Mr. Wright's tenure as Chairman of NGSA, his subordinate officers and his Executive Committee included vice-presidents and other senior officers of Exxon Company USA, Shell Oil Co., Chevron USA, Inc., Amoco Production, Mobil Oil Corp., Texaco, Inc., Arco Oil and Gas Co., Conoco, Inc., Phillips Petroleum Co., Union Oil Company of California, Sohio Petroleum Co., Louisiana Land & Exploration Co., Sun Company, Inc., Sun Gas Co., and other leading gas producers and lessees of the federal government.
- 21. During Mr. Wright's tenure as Chairman of NGSA and its Executive

 Committee, Wright had countless meetings, both formal and informal, with these senior

officers of the defendants. In the course of numerous informal evening meetings, Mr. Wright learned that the defendants engaged in practices and policies that resulted in the underpayment of gas and NGL royalties to the federal government as well as to state and private royalty owners. This information served to corroborate other evidence obtained directly through Mr. Wright's experiences as a royalty owner, as a Registered Professional Engineer, and as an independent oil and gas operator, both before and after his tenure with NGSA.

- 22. From all these sources Mr. Wright learned, inter alia, that the defendants' royalty practices and policies were employed on a company-wide basis they did not vary from field-to-field within a state, nor did they often vary from state-to-state. Mr. Wright, thus, understood that if a defendant engaged in gas or NGL royalty underpayment practices in one field or with one royalty interest owner, it likely also engaged in similar practices on a statewide and nationwide basis as well.
- 23. Mr. Wright also understood that common purchaser statutes enacted in many of the major producing states generally require gas and NGL producers to treat all royalty owners within such states equally, whether private, state or federal, and prohibit discrimination between such different royalty owners. Thus, underpayment of private royalty owners is direct evidence of underpayment of the federal government as a royalty owner in the same state.

Relators State of New Mexico and John Chavez

24. Relator State of New Mexico imposes production taxes on all oil, gas and natural gas liquids produced in the state. The New Mexico Taxation and Revenue

Department (the "Department") is responsible for the collection, audit, verification and

distribution of oil, gas and natural gas liquid production-related taxes. Relator John Chavez is the Secretary of the Department.

- 25. A significant amount of gas and NGLs produced in New Mexico is produced from wells located on federal lands. The state has the right to validate the reported taxable value associated with the gas and NGLs produced from these federal lands. The production value for state tax purposes is comparable to the production value for federal royalty purposes.
- 26. In conducting audits to determine appropriate production values for tax purposes, the state has learned that production companies utilize a number of methods to lower artificially the production value of the gas and NGLs they produce. These same schemes have the corresponding consequence of artificially lowering the value for purposes of calculating federal royalty obligations; and, in fact, the Department's audits have shown that many of the under-payments made by the defendants in the production-related tax area are directly proportionate to the amount of royalties owed.
- 27. The devices or schemes federal lessees in New Mexico use to lower their production related tax liability which would also improperly lower their federal royalty payments, include at least the following:
 - (A) The use of affiliated marketing arms which shift dollars from the production side of the company to the marketing division;
 - (B) The use of affiliated processing plants to lower values of NGLs;
 - (C) The improper deduction of marketing fees charged by affiliates;
 - (D) Taking deductions that exceed actual costs;
 - (E) Failing to increase reported production value to include additional revenues obtained as the result of tariff adjustments and court settlements;
- (F) Taking deductions for expenses that do not represent actual costs or charges;

- (G) Reporting processed gas as unprocessed and hiding potential disallowed costs;
 - (H) Use of exchanges, swaps, buy/sells and exchange balancing agreements;
 - (I) Reporting sales prices based on indexes rather than actual sales prices.
- 28. The Department has identified millions of dollars of additional taxable value that had been disguised by the above schemes and has collected additional tax dollars as a result.
- 29. The State of New Mexico is entitled by federal law to 50% of all gas and NGL royalties paid by defendants on federal leases located within the state. New Mexico is and has been injured by the practices described in this complaint. The Department also, on a cost basis, provides auditing assistance for the Minerals Management Service ("MMS") of the United States Department of the Interior. These audits have identified patterns and practices, like those described in paragraph above, used by federal lessees to lower royalty payments owed to the federal government. These audit findings are provided to the MMS.

DEFENDANTS

- 30. Each of the defendants listed below is a lessee or interest owner in oil and gas leases on federal lands administered by the United States Department of Interior. These federal leases cover onshore federal lands, Outer Continental Shelf ("OCS") and tribal and allotted Indian lands (collectively "federal lands"). Attached as Exhibit 1 is a table summarizing gas production by producer from federal leases (the first page of Exhibit 1 summarizes production from 1995-99; the following pages of Exhibit 1 give more detail for each year, 1995-99). As described below, each defendant has underpaid the federal government for gas and NGLs produced from these federal lands.
 - a. The Chevron Defendants Chevron USA Inc., Chevron Corporation, and Dynegy, Inc.

- 21. Defendant Chevron USA Inc., a wholly owned subsidiary of Defendant Chevron Corporation, is the nation's leading producer of OCS gas. Chevron is the largest producer from federal leases, accounting for over 11% of production from federal leases over the last five years. Since 1996, Chevron USA's marketing functions have been performed by Defendant Dynegy, Inc., previously named NGC Corporation. Prior to 1996, most of Chevron USA's NGL and gas marketing operations were handled by its divisions, Warren Petroleum Company (NGLs) and Natural Gas Business Unit (gas). Collectively defendants Chevron, USA, Inc., Chevron Corporation, Dynegy Inc. and Warren Petroleum Company will be referred to as "Chevron".
- 32. Chevron USA Inc. is a Pennsylvania corporation and can be served through its registered agent, Prentice-Hall Corporation System, 800 Brazos, Austin, Texas 78701. Warren Petroleum Company is a Delaware Corporation and may be served through its registered agent CT Corporation Systems 811 Dallas Avenue, Houston, Texas 77002. Neither Chevron Corporation nor Dynegy are registered with the Texas Secretary of State.

b. <u>Defendant Anadarko Petroleum Corp.</u>

- 33. Defendant Anadarko Petroleum Corporation ("Anadarko") produces substantial quantities of natural gas from federal OCS leases and from onshore leases. Much of this production is marketed through Anadarko's wholly owned subsidiary, Anadarko Energy Services Company. Anadarko is Delaware corporation and may be served through its registered agent, CT Corporation System, 811 Dallas Avenue, Houston, Texas 77002.
 - c. The BP Amoco Defendants BP Amoco Corporation, Amoco Production Company, and BP Exploration and Oil, Inc.

- 34. Defendant BP Amoco Corp. (formerly Amoco Corp.), and its subsidiary defendants Amoco Production Company, BP Exploration & Oil, Inc. are among the largest gas producers in the United States. They hold substantial numbers of federal leases in New Mexico, Colorado, Wyoming and on the OCS, and have produced over 7% of federal gas from 1995-99. Amoco gas has been marketed through its affiliate Amoco Energy Trading Corporation. BP Amoco Corp. is an Indiana corporation. It can be served through its registered agent Prentice-Hall Corporation, 800 Brazos Austin, Texas 78701. Amoco Production Company is a Delaware corporation, and BP Oil & Exploration, Inc. is an Ohio Corporation and each can be served through their registered agent, CT Corporation System, 811 Dallas Avenue, Houston, Texas 77002.
 - d. The Burlington Defendants Burlington Resources, Louisiana Land and Exploration Co., and Burlington Resources Oil and Gas Co.
- Defendant Burlington Resources, Inc. is a holding company for two principal operating subsidiaries: The Louisiana Land and Exploration Company ("LL&E") and Burlington Resources Oil and Gas Company ("BROG"). BROG was formerly known as Meridian Oil, Inc. These companies will referred to collectively as "Burlington." LL&E and BROG produce gas from both OCS and federal onshore leases. Burlington markets its gas through its subsidiary, Burlington Resources Trading, Inc.
- 36. Defendant Burlington Resources, Inc. is a Delaware corporation and can be served through its registered agent CT Corporation Systems, 811 Dallas Avenue, Houston, TX 77002. Defendant BROG is a Delaware corporation, and can be served through its registered agent CT System, 350 N. St. Paul, Dallas, Texas 75701. Defendant

LL&E is a Maryland corporation that can be served through its registered agent CT Corporation System, 811 Dallas Avenue, Houston, Texas 77002.

e. <u>Defendant CNG Producing Company</u>

37. Defendant CNG Producing Company ("CNG") is a subsidiary of Consolidated Natural Gas Corporation. CNG produces natural gas and NGLs from federal leases, and markets gas through its marketing subsidiary, CNG Energy Service Corporations. CNG is a Delaware corporation. It may be served through its registered agent, Prentice-Hall Corporation System 400 North St. Paul Street, Dallas, Texas 75201.

f. <u>Defendant Conoco, Inc</u>

38. From 1981 until October 1998, defendant Conoco, Inc. was a wholly owned subsidiary of E.I. du Pont deNemours and Company. In October 1998, Dupont divested itself of Conoco and has now sold all its Conoco stock. Conoco owns substantial federal leases offshore Louisiana and onshore in the San Juan Basin, and has been the sixth largest producer of gas from federal leases over the last five years. Conoco can be served through its registered agent, CT Corporation System, 811 Dallas Avenue, Houston, Texas 77002.

g. <u>Defendant Devon Energy Corporation</u>

39. In August 1999, PennzEnergy (formerly Pennzoil Company) merged into Devon Energy Corporation ("Devon"), making the new company one of the largest US based independent energy companies. Its gas has been marketed by an affiliated entity, PennUnion Energy Service, L.L.C. Devon is a Nevada corporation. It may be served through its registered agent CT Corporation System, 350 N. St. Paul, Dallas, Texas 75201.

h. The Enron Defendants - Enron Corporation and Enron Oil and Gas

40. Enron Corp. and its subsidiary, Enron Oil and Gas Company (collectively "Enron") are producers of natural gas from federal leases. Enron gas is marketed by affiliated companies - Enron Oil and Gas Marketing, Inc. and Citrus Trading Corporation. Enron Corp. is a Utah corporation, and Enron Oil Gas Company is a Delaware Corporation. Both can be served through CT Corporation System, 811 Dallas Avenue, Houston, TX 77002.

i. The Exxon Defendants - Exxon Corp. and Exxon USA

41. Defendant Exxon Corporation and its Exxon Company, USA division (collectively "Exxon") is a major producer of gas from OCS and federal onshore leases, responsible for about 5% of all production from federal leases. Exxon sells its gas directly to third party purchasers. Defendant Exxon Corp. is a New Jersey Corporation. It may be served through its registered agent John F. Tully, 800 Bell Street, Houston, Texas 77002.

j. The Kerr-McGee Defendants

- 42. Kerr-McGee Corporation and its subsidiary, Kerr-McGee Oil & Gas Corporation (collectively "Kerr-McGee") is a substantial producer of gas and NGLs from federal lands, which account for nearly 50% of Kerr-McGee's total gas and NGL production. Kerr-McGee primarily marketed its gas through its affiliate, Kerr-McGee Natural Gas, Inc., and now markets its gas through two other affiliates.
- 43. Defendants Kerr-McGee Corporation and Kerr-McGee Oil & Gas Corporation are both Delaware corporations, and both can be served through their registered agent, CT Corporation System, 350 N. St. Paul, Dallas, TX 75201.

k. <u>Defendant Marathon Oil Company</u>

- by United States Steel Corporation, now USX Corporation ("USX"). In 1991, Marathon became part of the Marathon Group, which is a unit of USX. Marathon Group includes five USX subsidiaries that are engaged solely in the natural gas business, including production and marketing. In addition, Marathon supplies gas to its corporate parent, USX, for use in its steel production activity. Marathon is an Ohio corporation which can be served through its registered agent, CT Corporation System, 811 Dallas Avenue, Houston, Texas 77002.
 - I. The Mobil Defendants Mobil Corporation, Mobil Exploration & Producing U.S. Inc, Mobil Oil Exploration & Producing Southeast, Inc., Mobil California Exploration and Producing Asset Company, Mobil Oil Corporation, Mobil Exploration and Producing Asset Company, and Mobil Producing Texas & New Mexico, Inc.
- 45. Defendant Mobil Corporation ("Mobil Corp.") wholly owns subsidiaries that hold substantial federal oil and gas leases onshore and offshore. They are defendants Mobil Exploration & Producing U.S. Inc., Mobil Oil Exploration & Producing Southeast, Inc., Mobil California Exploration and Producing Asset Company, Mobil Oil Corporation, and Mobil Producing Texas & New Mexico, Inc. Together Mobil Corp. and the defendant subsidiaries are jointly referred to as "Mobil".
- 46. Mobil Oil Corporation is a New York Corporation. Mobil Oil Exploration and Production, Mobil Producing Texas & New Mexico, Inc., and Mobil Oil Exploration & Producing Southeast, Inc. are incorporated in Delaware, and all may be served through their registered agent Prentice-Hall, 800 Brazos Austin, Texas 78701. Mobil Exploration and Producing North America, Inc. is a Nevada corporation, which is not registered with the Texas Secretary of State.

m. Defendant Oryx Energy Company

- 47. Defendant Oryx Energy Company ("Oryx") is a Delaware corporation.

 Oryx has been a substantial producer of OCS gas from federal leases. Oryx has conduced business in the United States through Sun Energy Partners, L.P. Oryx has served as Sun Energy Partners' managing partner, and is named here as a defendant in its corporate capacity and as general partner of Sun Energy Partners. Oryx was recently acquired by Kerr-McGee Corporation.
- 48. In 1995, wholly owned affiliates of Apache and Oryx formed a marketing subsidiary, ProEnergy to market their gas produced by Apache and Oryx. ProEnergy's ownership interests vary according to the percentage of gas sales attributable to each owner. Oryx may be served through its registered agent CT Corporation System, 350 North St. Paul Street, Dallas, Texas.

n. The Oxy Defendants - Occidental Petroleum Corporation, Occidental Oil and Gas Corporation, and OXY USA, Inc.

49. Defendant Occidental Petroleum Corporation ("Occidental") conducts its gas production business through two subsidiaries, defendant Occidental Oil and Gas Corporation and defendant OXY USA, Inc., (collectively "Oxy"). Oxy is among the top twenty producers of OCS gas. OXY USA Inc. is a Delaware corporation and may be served through its registered agent, the Prentice-Hall Corporation System 400 North St. Paul Street, Dallas, Texas 77201. Defendant Occidental Oil and Gas Corporation is a Texas corporation. It may be served through its registered agent Prentice-Hall, 800 Brazos, Austin, Texas 78701. Defendant Occidental Petroleum Corp. is not registered with the Texas Secretary of State.

o. Defendant Phillips Petroleum Company

50. Defendant Phillips Petroleum Company ("Phillips") is a substantial producer of gas and NGLs from OCS and federal onshore leases. It markets its gas through its affiliates Phillips Gas Company and GPM Gas Corporation. Phillips is a Delaware corporation and can be served through United States Corporation Company, 400 North St. Paul Street, Dallas, Texas 75201.

p. <u>Defendant Samedan Oil Corporation</u>

51. Samedan Oil Corporation is a large producer of OCS gas. Samedan is a wholly owned subsidiary of Noble Affiliates. Samedan markets its gas through its affiliates - Noble Gas Marketing Inc. and Noble Trading, Inc. Samedan is a Delaware Corporation and can be served through its registered agent CT Corporation System. 350 North St. Paul Street, Dallas, Texas 75201.

q. The Shell Defendants - Shell Oil Company, Shell Offshore, Inc, Shell Frontier Oil and Gas and Shell Western E&P Inc.

- Defendant Shell Oil Company ("Shell Oil") is a subsidiary of Shell Petroleum, Inc. (which is jointly owned by Dutch and British interests). Shell Oil owns a number of subsidiary corporations engaged in the production and marketing of natural gas. These include defendants Shell Offshore, Inc, Shell Deepwater Production, Inc., Shell Exploration and Production Company, Shell Frontier Oil and Gas, Inc., and Shell Western E&P Inc. (The Shell defendants will be referred to collectively as "Shell"). In 1995, Shell Oil and Tejas Gas Corporation ("Tejas") formed a natural gas marketing company named Coral Energy, L.P. In 1996, Coral purchased substantially all of Shell's natural gas production. More than half of Coral's purchases were then sold to Shell Chemical Company. In the fall of 1997, Shell became the sole owner of Tejas.
- 53. Shell Oil, Shell Western E& P, Shell Offshore, Inc., Shell Deepwater Production, Inc., and Shell Frontier Oil & Gas, Inc. are all Delaware corporations, and may be served through their registered agent, CT Corporation System, 811 Dallas Ave.,

Houston, Texas. Shell Exploration and Production Company is a Delaware Corporation and may be served through its registered agent Prentice Hall Corporation, 800 Brazos, Austin, TX 78701.

- r. The Texaco Defendants Texaco, Inc. and Texaco Exploration and Production, Inc.
- 54. Defendants Texaco, Inc. and its subsidiary Texaco Exploration and Production, Inc. (collectively "Texaco") are Delaware corporations. Texaco markets its gas through its affiliated entity, Texaco Gas Marketing, Inc. Texas is a leading producer of OCS gas and NGLs, having been the third largest producer from federal lands from 1995-99. Texaco Inc. and Texaco Exploration and Production, Inc. may be served through their registered agent, Prentice-Hall Corporation system, 400 North St. Paul Street, Dallas, Texas 75201.
 - s. <u>Total Fina Defendants Total Fina S.A., Fina Oil and Chemical Company, Total Minatome Corporation, Total Exploration Production USA, Inc., and Elf Exploration, Inc.</u>
- 55. Defendant Total Fina S.A., through its wholly owned direct and indirect subsidiaries, Fina Oil and Chemical Company, Total Minatome Corporation, Total Exploration Production USA, Inc., and Elf Exploration, Inc. (collectively "Total Fina"), produces gas and NGLs from Gulf OCS leases. Total Fina gas is marketed through Fina Natural Gas Company, a wholly-owned marketing affiliate. Total Fina also operates the world's largest polystyrene plant as well as large polypropylene and plants that consume gas and NGLs produced by Total Fina from federal lands. Fina Oil and Chemical Company is a Delaware corporation and can be served through its registered agent, CT Corporation System, 350 N. St. Paul, Dallas, Texas 7520. Total Exploration Production USA, Inc., Total Minatome Corporation, and Elf Exploration, Inc., are also Delaware corporations and can be served through their registered agent, CT Corporation System,

811 Dallas Avenue, Houston, Texas 77002. Total Fina S.A. is a corporation organized under the laws of France and is not registered in Texas.

t. <u>Defendant Union Oil Company of California</u>

56. Union Oil Company of California ("Unocal") is one of the U.S.' top five producers of OCS gas. Unocal is a California corporation which may be served through CT Corporation System, 811 Dallas Avenue, Houston, Texas 77002.

u. <u>Defendant Union Pacific Resources Group, Inc. and Norcen</u> Explorer, Inc.

57. Defendant Union Pacific Resources Group, Inc. ("UPRG") was created in the mid 1990's when a number of wholly owned subsidiaries of Union Pacific Corporation were joined together and divested by the parent corporation. In 1998, UPRG acquired Norcen Explorer, Inc. and is presently the country's tenth largest producer of OCS gas. UPRG is a Utah corporation and may be served through its registered agent CT Corporation System, 350 N. St. Paul, Dallas, TX 75201. Norcen Explorer, Inc. is a Delaware Corporation and may be served through its registered agent CT Corporation System, 350 N. St. Paul, Dallas, TX 75201.

v. <u>Defendants Vastar Resources and Atlantic Richfield Company</u>

58. Defendant Vastar Resources ("Vastar") was created in the fall of 1993 as a wholly owned subsidiary of defendant Atlantic Richfield Company ("Arco"). At all times since, ARCO has owned at least 81 percent of Vastar's stock. Upon forming Vastar, Arco contributed to it the vast majority of Arco's U.S. gas producing properties (excluding Alaska). As a result, Vastar produces nearly one billion cubic feet of gas a day, about 40 percent of which comes from OCS leases. Vastar's gas is marketed through Vastar Gas Marketing, Inc. Arco and Vastar are both Delaware corporations and both can be served through their registered agent, CT Corporation System, 350 North St. Paul, Dallas, Texas.

59. The Defendants engaged in many schemes and agreements among each other to undervalue the gas and NGLs produced from federal leases. These practices and agreements are discussed in detail below: III. Use of variable plant ownership agreements; IV. Engaging in exchanges, buy/sells and exchange balancing agreements; V. Non-arm's length sales to marketing affiliates; VI. Failing to use appropriate values for intracompany transfers and in-house consumption of gas; VII. Overall balancing agreements involving condensate; VIII. Taking unwarranted and unlawful deductions from the value of their gas; IX. Various other schemes.

III. DEFENDANTS ENGAGED IN A FRAUDULENT SCHEME TO CONCEAL NGL PRODUCTION FROM FEDERAL ROYALTY OBLIGATION

a. Relator Wright's Experience with Straddle Plant Processing

- 60. Relator Wright was Vice-President of Operations for an oil and gas production company, Producing Properties, Inc. ("PPI"), from 1952 until late 1963. He was directly responsible for producing and marketing PPI's production of gas, NGLs, condensate and oil in the Mid-Continent and Rocky Mountain Areas, as well as in the Wilmington Field in Long Beach, California and some 1,000 other wells in Kern County, California.
- 61. In the 1950's, PPI acquired the secondary natural gas liquid ("NGL") processing rights on all natural gas produced in the large Panhandle Field of Texas and sold to Colorado Interstate Pipe Line Company. The primary processing had already occurred in processing plants located in the field.
- 62. Beginning in 1960 Wright, as Vice-President of Operations for PPI, supervised and managed the design, construction and operation of an NGL straddle plant on the main Colorado Interstate pipeline serving the Panhandle Field. This NGL straddle plant cost some \$5 million, and processed 300 MMCF/D (million cubic feet per day) of field-plant-processed gas.

- 63. At the point of secondary processing, the gas was very lean, containing only about 1/4 to 3/8 gallon of NGLs per MCF. Even so, the processed NGLs were so valuable that the entire cost of the processing plant was recouped in less than 2 years. From this experience, Mr. Wright learned that processing gas to extract NGLs was often extremely profitable even when the gas contained only small quantities of NGLs. Mr. Wright's understanding of the value and operation of NGL processing derived from this personal experience and led him to discover that NGL royalties were substantially underpaid by lessees of both the federal government and private landowners.
- 64. Wright applied his experience in the processing of NGLs to conclude, as alleged more fully below, that NGL production from federal OCS properties processed onshore at "straddle plants" were being grossly under-reported for purposes of federal royalty payments. This conclusion is based on (a) the information he learned from senior officers of defendants during his tenure with NGSA, (b) his direct knowledge of the average NGL content per MCF of gas in Texas and Louisiana (gained by him as an independent oil and gas operator), and (c) the fact that there are no NGL processing plants on offshore platforms.

b. Defendant Ownership of Straddle Plants

- 65. BP-Amoco is a federal lessee of OCS gas producing properties in the Gulf of Mexico. BP-Amoco is or has been also a co-owner of the Blue Water, Calumet, North Terrebonne, Toca, Sea Robin and Toca gas processing plants located in Louisiana.
- 66. Texaco is a federal lessee of OCS gas producing properties in the Gulf of Mexico. Texaco and/or its affiliates are or have been also a co-owner of the Blue Water, Patterson, Calumet, North Terrebonne, Toca, Grand Chenier, Sea Robin and Yscloskey gas processing plants located in Louisiana.
- 67. CNG is a federal lessee of OCS gas producing properties in the Gulf of Mexico. CNG is or has been also a co-owner of the Blue Water gas processing plant located in Louisiana.

- 68. Shell is a federal lessee of OCS gas producing properties in the Gulf of Mexico. Shell (and/or its affiliates) is or has been also a co-owner of the Blue Water, Calumet, North Terrebonne, Toca, Iowa, Sea Robin, and Yscloskey gas processing plants located in Louisiana.
- 69. Chevron is a federal lessee of OCS gas producing properties in the Gulf of Mexico. Chevron (and/or its affiliates) is or has been also a co-owner of the Calumet, North Terrebonne, Toca, Iowa, Grand Chenier, and Yscloskey gas processing plants located in Louisiana.
- 70. UPRG is a federal lessee of OCS gas producing properties in the Gulf of Mexico. UPRG is or has been also a co-owner of the Patterson and Calumet gas processing plants located in Louisiana.
- 71. ARCO and Vastar are or have been federal lessees of OCS gas producing properties located in the Gulf of Mexico and each is or has been also an owner of the Calumet, Grand Chenier, and Yscloskey gas processing plants located in Louisiana.
- 72. Exxon is a federal lessee of OCS gas producing properties in the Gulf of Mexico. Exxon is or has been also a co-owner of the Calumet, Toca, Iowa, and Yscloskey gas processing plants located in Louisiana.
- 73. Mobil is a federal lessee of OCS gas producing properties in the Gulf of Mexico. Mobil (and/or its affiliates) is or has also been a co-owner of the Calumet, North Terrebonne, Toca, Grand Chenier, Sea Robin and Yscloskey gas processing plants located in Louisiana.
- 74. Conoco is a federal lessee of OCS gas producing properties in the Gulf of Mexico. Conoco is or has been also a co-owner of the Calumet, North Terrebonne, Toca, Grand Chenier, and Yscloskey gas processing plants located in Louisiana.
- 75. Phillips is a federal lessee of OCS gas producing properties in the Gulf of Mexico. Phillips is or has been also a co-owner of the North Terrebonne, Toca, and Yscloskey gas processing plants located in Louisiana.

- 76. Defendant Marathon is a federal lessee of OCS gas producing properties in the Gulf of Mexico. Marathon is or has been also a co-owner of the North Terrebonne gas processing plant located in Louisiana.
- 77. Unocal is a federal lessee of OCS gas producing properties in the Gulf of Mexico. Unocal is or has been also a co-owner of the North Terrebonne and Toca gas processing plants located in Louisiana.
- 78. Devon Energy (formerly Pennzoil) is a federal lessee of OCS gas producing properties in the Gulf of Mexico. Devon Energy is or has been also a co-owner of the Sea Robin gas processing plant located in Louisiana.
- 79. Oxy is a federal lessee of OCS gas producing properties in the Gulf of Mexico. Oxy (and/or its affiliates) is or has been also a co-owner of the Yscloskey gas processing plant located in Louisiana.
- 80. Oryx (now Kerr-McGee) is a federal lessee of OCS gas producing properties in the Gulf of Mexico. Oryx (or its affiliate) is or has been also a co-owner of the Yscloskey gas processing plant located in Louisiana.
- 81. Unocal is a federal lessee of OCS gas producing properties in the Gulf of Mexico. Unocal (or its affiliate) is or has been also a co-owner of the Yscloskey gas processing plant located in Louisiana.
- 82. Total Fina is a federal lessee of OCS gas producing properties in the Gulf of Mexico. Fina (or its affiliate) is or has been also a co-owner of the Yscloskey and North Tennessee gas processing plants located in Louisiana.
- 83. Samedan is a federal lessee of OCS gas producing properties in the Gulf of Mexico. Samedan (or its affiliate) is or has been also a co-owner of the Toca gas processing plant located in Louisiana.
- 84. LL&E is a federal lessee of OCS gas producing properties in the Gulf of Mexico. LL&E is or has been also a co-owner of the Toca gas processing plant located in Louisiana.

85. As described below, the defendants identified in paragraphs 65 to 84 above have conspired among themselves to use their co-ownership of gas processing plants to evade federal royalty obligations on billions of gallons of NGLs produced from federal properties. As a result, these defendants have cheated the federal Treasury out of billions of dollars of royalty revenue.

c. OCS Production

- 86. More than one third of the nation's total gas production comes from federal and Indian lands.
- 87. Eighty percent of this federal production comes from offshore OCS waters. Thus, OCS gas production (98 percent of which occurs from offshore Louisiana and Texas) accounts for 25 percent of the nation's total gas production.
- 88. Gas production occurs on federal and Indian lands pursuant to lease agreements between the government and the producing company lessees. These leases require that the lessee pay the Government a percentage of all production as a royalty interest. This interest is generally one-sixth of the OCS production (or 16.67 percent) and 1/8 of the onshore production (or 12.5 percent).
- 89. Royalty value is defined by federal regulation, and varies depending on whether the gas is "processed gas" or "unprocessed gas." There are separate sets of rules for the two classifications.

d. Processed and Unprocessed Gas

- 90. The standard unit of measurement of gas volumes is one MCF (one thousand cubic feet) at a specified pressure base.
- 91. When natural gas is withdrawn from the wellhead (often called "wellhead" or "wetstream" gas), it is composed largely of methane ("dry" or "residue") gas. In addition, "wetstream gas" also includes contaminants (such as water, nitrogen, sulfur and carbon dioxide) and natural gas liquid products ethane (C₂), propane (C₃), butane and

isobutane (C₄) and pentane and natural gasoline (C₅+). The liquid products are commonly referred to as natural gas liquids or "NGLs".

- 92. Wetstream gas is gathered from the wellhead via pipeline gathering systems, transported to a gas processing plant, where NGLs are extracted, and processed before it is delivered to end users. The contaminants, downstream condensate, and NGLs are separated and removed, and the residue gas is compressed for pipeline delivery to customers. See Exhibit 2.
- 93. More modern cryogenic processing plants typically remove most of the NGL components in the wetstream gas, including a large proportion of the ethane. Ethane is the most difficult and expensive component to remove, because it is the lightest and requires colder temperatures for it to condense out of the wetstream gas. Ethane is also the least valuable of the NGL components. When the market price for ethane is very low, processing plants may not remove some or all of the ethane. Infrequently, during times of low market prices for NGL components in general, the wetstream gas may bypass the processing plant entirely, with no NGLs being removed.
- 94. Typically, the NGL stream leaving the gas processing plant consists of a mixture of ethane, propane, butane, isobutane, pentane and natural gasoline. This mixture is commonly referred to as "raw mix," or "raw make."
- 95. At the tailgate of the gas processing plant, the NGL raw mix is measured for how much of each NGL component it contains, and then is typically transported via pipeline to a fractionation plant. At the fractionation plant, the NGL raw mix is separated into its various NGL components of ethane, propane, butane and isobutane, pentane and natural gasoline. These NGL components are marketed for various uses.
- 96. NGL components are used as feedstock in the petrochemical industry.

 Propane, and to a lesser extent, butane, are also used as heating fuel, largely in rural areas. Natural gasoline and isobutane can be in oil refining as gasoline blending agents.

- 97. While the volume of gas is measured in MCF's, the energy value of gas (which is the pricing basis of gas) is measured in terms of its heat content or BTU ("British Thermal Unit") value.
- 98. Pipeline quality methane contains about 1000 BTU per cubic foot or one million BTU's (MMBTU) per one thousand cubic feet (MCF). By contrast, unprocessed wetstream gas with its NGL content, may contain 1500 or more BTU's per cubic foot, or 1.5 MMBTU or more per MCF depending on the richness of its liquid content.
- 99. Natural gas produced from oil wells, called "associated" or "casinghead" gas, is almost invariably much richer in NGLs than "non-associated" or "gas well" gas produced from gas wells. The associated gas may produce 3 to 12 gallons of NGLs per MCF, while non-associated gas may contain only 1 to 3 gallons of NGLs per MCF.
- 100. Because gas is quoted and sold on a MMBTU basis, in an arms length sale, the price of unprocessed gas will exceed the price of dry processed gas, because the unprocessed gas has a higher BTU-content. For example, if the price of gas is \$2.00 per MMBTU, then dry, processed gas containing 1 MMBTU per MCF would price at \$2.00 per MCF. In contrast, unprocessed gas (which includes NGLs) with 1.5 MMBTU per MCF would be valued at \$3.00.
- 101. In addition, the NGLs and condensate that are extracted and sold separately generally command a higher market price than when they are sold in unprocessed wetstream gas. So, in most instances, the value of the processed residue gas plus the processed NGLs and condensate will exceed the value of the unprocessed wetstream gas. Accordingly, a producer-lessee can usually increase its profit by processing its wetstream gas and selling separately the processed residue gas, the NGLs and the downstream condensate.
- 102. Federal regulations define unprocessed gas as "all gas that is not processed and all gas that is processed but is sold or otherwise disposed of by the lessee pursuant to an arm's-length contract prior to processing." 30 C.F.R. §206.152.

e. POP Contracts

- 103. "Percentage of proceeds" ("POP") contracts are a common type of agreement for processing wetstream gas. Under a POP contract, the producer-lessee agrees to deliver its unprocessed gas to the processor. The processor retains a percentage of the NGLs extracted as a processing fee, returning to the producer all processed residue gas and a portion of the extracted NGLs.
- 104. Where the lessee sells its unprocessed gas pursuant to an arms-length contract, federal regulations require that it pay royalty based on "gross proceeds" from the sale. 30 CFR §206.152. In other words, in a true arm's length POP contract, the lessee pays a royalty only on the proceeds it retains, and not on the proceeds kept by the processor. This means that if the lessee pays 25 percent of the NGLs as a processing fee, neither the processor nor the lessee pay royalty on those NGLs.
- 105. In contrast, where POP contracts are made on a non-arms-length basis, federal regulations provide that the royalty value cannot be less than the gross proceeds accruing to the lessor for both the residue gas and all NGL products, (minus the reasonable, actual costs of processing). 30 CFR §206.153. Thus, the lessee must pay the royalty even on NGL product retained by the processor.
- 106. In addition, where the lessee's gas is processed by the lessee itself or its affiliate and after processing, the residue gas is not sold under an arms-length contract, federal regulations require that the lessee engage in "dual accounting" to insure that the gas is valued for royalty purposes at the greater of (1) the value of the combined value of the residue (dry) gas and the gas plant products (NGLs) or (2) the value of the gas prior to processing. 30 CFR § 206.155.

f. Variable Ownership Straddle Plants

107. As alleged above, over the last fourteen years, it has generally been more profitable to extract NGLs and sell them and the residue gas separately, rather than to sell the wetstream gas on a BTU basis as unprocessed gas. When gas is processed and NGLs

extracted, a federal lessee is obligated to pay royalty on both the dry gas <u>and</u> all NGLs produced from that gas (except in the case of an arm's length sale prior to processing where the NGLs are not retained by the lessee).

- 108. To qualify as an arms-length sale, the contract must be "arrived at in the marketplace" between non-affiliated persons with opposing economic interests. 30 CFR § 206.151. As alleged below, the contracts at issue are non-arms length arrangements between parties with aligned economic interests.
- 109. Much of the gas produced from the Gulf OCS is processed at large onshore plants which straddle the main transmission pipelines leading from the plants to market areas. These are commonly referred to as "straddle plants".
- 110. Many of these OCS straddle plants are jointly owned by a number of federal lessees and/or their affiliates pursuant to what are commonly called in the industry, construction and operation (or "C & O") agreements. As described below, ownership agreements provide for ownership interests that vary periodically according to the relative percentages of gas and/or NGLs each owner has processed (the gas "throughput") at the straddle plant.
- 111. Each of the defendants listed in paragraph 65 to 84 above is a federal OCS lessee, and each of these defendants (or its affiliate) is also a joint owner of one or more OCS straddle plant. Each of the defendants processes gas it produces from federal OCS leases at one or more of the straddle plants in which it has an ownership interest.
- 112. Louisiana straddle plants processing OCS production which have variable ownership arrangements likely at least Calumet, Grand Chenier, Yscloskey, Sea Robin, Toca, Blue Water, Iowa, North Terrebonne, and Patterson.
- 113. These variable ownership provisions serve at least three purposes: (1) they assure that each co-owner will participate in plant revenues in proportion to the extent each co-owner has contributed to such profits by processing its own gas production in the plant; (2) they allow the lessees to share actual processing costs; and, as described below

- (3) they provide a scheme by which the co-owners attempt to insulate NGL production from federal royalty obligations.
- NGLs each federal lessee processes through the plant, the interests vary periodically to reflect a lessee's varying production. So if one year, 8 percent of the gas moving through the plant (the "throughput") belongs to producer X, then 8 percent of the ownership interest in the plant is allocated to producer X. Although producer X received 8 percent interest in the plant's total <u>revenues</u>, in essence, it received <u>100 percent interest</u> in its own throughput.
- 115. Defendants that co-own plants that process their wetstream gas production on a variable ownership basis, contract with themselves when they enter the POP agreements. In essence, these defendants agreed under the POP contract to pay themselves as plant co-owners a percentage of the proceeds generated from the NGL production attributable to them as producers.
- 116. In no event can such a self-dealing arrangement be viewed as an arm's length transaction. The proceeds sharing arrangements under these POP contracts were not "arrived at in the marketplace between independent, non-affiliated persons with opposing economic interests regarding that contract." See 30 CFR § 206.151. They are non-arms length arrangements between parties with aligned economic interests.
- 117. Indeed, the plant co-owners who are also the producers have conspired to allocate a higher percentage of the NGL proceeds to themselves as plant co-owners in order to insulate fraudulently those proceeds from federal royalty payment. This arrangement is directly contrary to federal regulation requiring that, in non-arm's length transactions, royalty be paid on 100 percent of the value of the lessee's NGLs.
- 118. The lessee/co-owners, thus, must value their production according to "dual accounting" standards, and pay royalty on the greater of the value of the unprocessed gas or the value of the residue gas, plus all the NGLs less allowable costs. 30 CFR §

206.155. During the period at issue, the value of processed residue gas plus the NGLs most often was greater than the value of unprocessed gas (except during periods of abnormally low oil prices or abnormally high gas prices). Thus, in non-arm's length transactions such as these, where dual accounting is required, the defendant-lessees usually should have paid a royalty based on the combined value of all the processed residue gas plus all the NGLs, rather than on the unprocessed wetstream value of the gas.

- 119. In this case however, defendants have failed to report and pay royalty on NGL revenues they receive as processing plant co-owners. Instead, they have improperly underpaid royalty based only on those NGL proceeds allocated back to the lease under the non-arm's length POP contracts.
- owners allocated approximately 45 percent of the NGL proceeds to the plant as a processing fee. Thus, the lessee co-owners would receive back 55 percent of the NGLs it produced and would pay a royalty on that 55 percent. The same lessee (as co-owner of the straddle plant) would also receive back the remaining 45 percent of the NGLs attributable to its throughput (minus a small amount for processing costs/operating expenses, which amount to less than 2¢ per gallon), and would pay no royalty on these plant "ownership" NGLs. As a result, 45 percent of the over 300 million gallons of NGLs processed annually at the Yscloskey facility each year are, and have been, diverted from royalty obligations.
- 121. In a variation of the variable ownership agreement, ownership percentages are fixed. However, pursuant to their C & O agreement, lessee/co-owners are required to process a minimum amount of gas at the plant, thereby ensuring their ownership proportion of the plant does not exceed the proportion of gas processed.
- 122. Contracts between a federal lessee and a straddle plant where the lessee's ownership interest reflects its throughput (regardless of the percentage of the overall

production that throughput represents) can never be an arms-length contract since the lessee is agreeing to pay itself all "profits" attributable to the processing of its throughput.

- Such processing contracts between a lessee and a processing plant where the lessee owns 100 percent of the NGLs produced from its gas are not arm's length.

 Thus the lessee must pay royalty on the greater of the value of the unprocessed gas or the value of the dry gas plus all NGL products.
- 124. The POP arrangements vary from plant to plant, and, therefore as described below, as much as 50 percent or more of the NGLs extracted by the variable ownership straddle plants may unlawfully be avoiding royalty obligations under the guise of operator profits.
- 125. Relators allege on information and belief that substantially all NGLs produced from federal lands by defendants BP-Amoco, Exxon, Shell, Texaco, Oxy, Mobil, Chevron, Conoco, Phillips, UPRG, Marathon, Unocal, and Oryx have been processed on a non-arms length basis.

g. <u>Unreported NGL Production</u>

- During the period at issue, the defendants have failed to pay royalties on billions of gallons of NGLs produced from federal lands, and processed and sold through POP contracts and variable ownership arrangements. While in some instances the defendants may have paid royalty based on the lower value of the unprocessed gas, more frequently they paid no royalty on processed NGLs retained by the plant as a "processing fee" and allocated to their plant ownership.
- and field-to-field, it is possible to estimate roughly the extreme degree to which defendants have under reported their NGL production from federal lands. Federal production accounts for more than one-third of the nation's gas production and comes from thousands of different fields across the country. On average, OCS gas contains at least as large proportion (and potentially a greater proportion) of NGLs than gas

produced from onshore fields. Overall, NGL content of gas produced from all federal lands should be at least as much as the NGL content in gas produced from state and private lands, since a large proportion of federal gas is produced from OCS leases (as compared to private and state lands). Since federal leases accounted for 34 percent of the nation's gas production, these same leases should account for at least (and possibly more) than 34 percent of the nation's NGL production.

- 128. Federal royalty records for 1994 indicate that NGL production reported from federal leases represented only 8.79 percent of NGLs produced in the United States, while these same leases contributed 34.3 percent of dry gas production. Similarly, annual state production figures show that the NGL production reported to the federal government for royalty purposes falls far short of actual federal production. The disparity indicates widespread under reporting of NGL production from federal properties.
- 129. In 1996, for example, OCS lessees reported to the federal government that combined royalties were owed on only 1.467 billion gallons of NGLs produced from offshore Louisiana properties, but actual NGL production from these properties totaled about 6.132 billion gallons. These statistics indicate federal lessees paid royalties on less than 25 percent of actual NGL production from offshore federal leases. Likewise, in 1997, the overall NGL content for all Texas gas production was 2.809 gallons per MCF of processed gas. However, federal lessees of Texas OCS leases paid royalties on only 0.0958 gallons of NGLs per MCF of processed gas, or less than 4 percent of the statewide average.
- 130. This same pattern of NGL under reporting also occurred in New Mexico where about 50 percent of all land is federal or Indian land. In 1997, for example, the total NGLs per MCF of gas reported for federal royalty payments was 0.6638 gallons of NGLs per MCF. At the same time, all New Mexico processors reported an average production of 3.17 gallons of NGLs per MCF of dry gas production. Thus, federal

royalties were apparently paid on only about 21 percent of the NGLs actually produced from federal and Indian lands in New Mexico.

- OCS produced NGLs in Louisiana alone likely have been allocated to non-royalty paying "processors" pursuant to self-dealing POP contracts between defendant/lessees and defendant/co-owners that were one and the same entity. Billions of additional gallons of NGLs have been processed at other lessee-owned processing plants in other states, and thus diverted from federal royalty obligations as well.
- NGLs produced from federal lands aggregates to billions of dollars. Conservatively, assuming only 2 billion gallons of NGLs per year upon which no royalties were paid, at an average wellhead value of \$0.20/gal., the federal government's damages would aggregate to \$400 million per year. Throughout the period at issue, the defendants used self-dealing POP contracts and plant ownership agreements to conceal and evade those substantial federal royalty obligations. Pursuant to the False Claims Act, 31 U.S.C. §3729 (a), the Government is entitled to recover three times the amount of all unpaid royalties on these billions of gallons of NGLs together with civil penalties.

h. False Statements in Violation of 31 USC §3729 (a)(7)

- lands belonging to or administered by the United States Government, they are legally obligated under their leases, and the applicable federal statutes and regulations, to account for and pay to the United States Government the royalties on gas produced from federal lands as provided in such leases.
- 134. The collection of government royalties on federal (including Indian) lands is administered by the Management Minerals Service ("MMS") of the United States Department of the Interior ("DOI").

- NGL royalty obligations, defendants made numerous false and/or fraudulent statements to the MMS the agency charged with administering the federal gas royalty program. At all times relevant to this complaint, MMS required lessees to file a monthly report (MMS-2014) of gas sales and royalty remittances for the preceding production month. This report required the lessee to state the sales values and royalty values at which the gas royalties have been calculated for royalty payment purposes.
 - 136. Form MMS-2014 bears the following statement:
 "WARNING: This is to inform you that failure to report accurately and timely in accordance with the statutes, regulations or terms of the lease, permit, or contract may result in late payment charges, civil penalties, or liquidated damages being assessed without further notification. Intentional false or inaccurate reporting is subject to criminal prosecution in accordance with applicable Federal law(s)."
- 137. In addition, Form MMS-2014 has a signature line which bears the following statement: "I have read and examined the statements in this report and agree that they are accurate and complete."
- 138. As described above, defendants knowingly engaged in self-dealing schemes to avoid royalty payments to the federal government for NGLs produced from federal leases
- 139. As a part of these schemes, the each of the above defendants knowingly and consistently submitted MMS-2014 forms to the federal government that understated the sales values and the royalty values owed for NGLs produced at processing plants where that defendant held an ownership interest that varied according to its gas production.
- 140. Accordingly, each defendant listed in paragraphs 65 to 84 above knowingly made a false statement in violation of the False Claims Act, 31 U.S.C. §3729 (a)(7).

IV. DEFENDANTS USED NGL EXCHANGES, BUY/SELLS AND BALANCING AGREEMENTS WITH EACH OTHER TO HIDE AND MANIPULATE THE VALUE OF NGLs FOR ROYALTY PURPOSES

141. Most or all of the Defendants in this action participated in NGL exchanges, buy/sells and exchange balancing agreements with each other. Defendants routinely involved in these types of agreements include at least Exxon, Mobil, Chevron, Texaco, Enron, Shell, Conoco, Phillips, Marathon, Unocal, Arco (Vastar), Meridian (Burlington), BP Amoco, Union Pacific Resources and Kerr-McGee, most likely include Devon and Anadarko, and likely include Oxy, Oryx and Total Fina.

a. Exchanges

- 142. Most or all of Defendants have entered into ongoing exchange agreements whereby they traded NGLs with each other. These exchanges have been typically volumetrically balanced, so that the one party would periodically exchange an exact amount of NGLs with another pursuant to each contract. The only price term in such an agreement is a quality and location differential.
- 143. Exchanges, as employed by the Defendants, have been used to hide the true value of the NGLs transacted with each other. Defendants have entered into such exchanges with each other, without placing a monetary value upon the NGLs transacted, in part to avoid selling outright their NGLs for their true value. By not selling outright exchanged NGLs, Defendants could have and did arbitrarily assign a lower value to the NGLs, which were exchanged. This allowed the Defendants to avoid sales for cash, and thereby undervalue their NGLs for federal royalty purposes.

b. NGL Buy/Sells

- Defendants also commonly have entered into "buy/sell" agreements with each other and with their marketing affiliates. Under such an agreement, a volume of NGLs would be delivered by one party to the other at a given price, and a corresponding volume of NGLs would be delivered back by the other party at a different location and at a different price.
- 145. Buy/sells have been used by the Defendants to manipulate the price of NGLs sold or exchanged at the tailgate of a NGL Processing Plant as individual products (e.g. Propane) or as part of a raw mix stream. Buy/sells have also been used to manipulate the price of NGLs when ownership of such products is retained by the lessee and the products are shipped to various downstream storage locations or fractionation plants and subsequently sold or exchanged. In buy/sells conducted with each other, Defendants have manipulated the NGL prices recited in the contract so that they do not reflect the true value of the NGLs transacted between them.
- In a buy/sell agreement, there is an inherent differential price between the two volumes of NGLs bought and sold. For example, as part of the same agreement, Party A sells 100 gallons of NGLs to Party B for \$0.50/gal.; Party B sells back 100 gallons of NGLs at a different location for \$0.55/gal. The \$0.05/gal. difference between the two prices represents the quality and location differential between the two volumes of NGLs transacted. This \$0.05/gal. differential was the only price term in the contract with any consequence to the parties. So long as the differential remained \$0.05/gal. the individual price terms assigned to the two different volumes of NGLs does not matter. See Exhibit 3.

147. Understanding that the absolute price terms assigned to the NGLs in their buy/sell contracts were of no economic consequence, the Defendants have manipulated those prices to understate the true value of NGLs transacted between them. The Defendants have used these artificially manipulated and depressed prices agreed to between them as a basis for federal royalty payments, thereby undervaluing the value of federal NGLs at the wellhead.

c. NGL Balancing Agreements

- 148. From time to time, these exchange and buy/sell agreements became volumetrically out of balance. That is, one party would be short in its NGL deliveries to the other contracting party.
- NGLs delivered and received under such exchange contracts, in order to avoid paying each other in cash for each other's NGLs when the exchange contracts became imbalanced. These balancing agreements do not involve simply the two contracting parties to a single exchange. Instead, several Defendants work with each other from time to time to balance out many different exchange contracts between many different exchanging parties.
- agreements used by the Defendants: A is short 100 gallons in one exchange agreement to B; B is short 100 gallons in another agreement to C; C is short 100 gallons in yet another agreement to D. A "transfer letter" would be issued which identified each party and the volume to be exchanged and delivered. Following issuance of such letter, and the appropriate debiting or crediting of each company's respective exchange balance account,

A would balance all these transactions by simply delivering 100 gallons to D. A's exchange with B then would be in balance, B's exchange with C would be in balance, and C's exchange with D would be in balance. See Exhibit 4.

- 151. In reality, the accounting and balancing is far more intricate and complicated than this example. The Defendants coordinate with each other to undertake such intricate and difficult accounting so as to avoid having to pay each other in cash for NGL deliveries.
- 152. The monthly tracking and balancing of exchanges and buy/sells is a time consuming function. Companies, depending upon their individual activity, dedicate 1-4 individuals called "Distribution Representatives," whose full-time job is to maintain proper balancing of the exchange accounts and to coordinate with Accounting, which itself usually contains another 2-3 fulltime individuals to properly manage these extremely important inventory assets and liabilities. Defendants with personnel dedicated to handling these exchange and balancing responsibilities include at least Exxon, Mobil, Chevron, Texaco, Enron, Shell, Conoco, Phillips, Marathon, Unocal, Arco (Vastar), Meridian (Burlington), BP Amoco, Union Pacific Resources and Kerr-McGee, most likely include Devon and Anadarko, and likely include Oxy, Oryx and Total Fina
- 153. A major part of a Distribution Representative's workload involves exchange balancing. This activity includes (1) the daily tracking of each exchange's balance vis-à-vis the exchange partner. (2) Periodic reconciliation of each company's exchange position with the other. (3) Monthly scheduling of volumes to keep the exchange in balance.

d. Periodic NGL Exchange Balancing

- 154. As often as several times a month, a Distribution Representative might wish to balance out a particular exchange by either making or receiving a delivery. A simple example would involve company A, which produces Propane at the tailgate of a Gas Processing Plant. Company B takes title to the Propane at the Plant's tailgate through exchange and delivers Propane back to A within Texas Eastern Transmission's (TET) storage facilities at Mt. Belvieu, Texas. Company B is also involved in exchanges with other industry companies. In this example, company C owes Propane to B at TET's facility.
- 155. By agreement between each exchange partner, C agrees to deliver 400 gallons for B's account at TET. B agrees to deliver 400 gallons for A's account at TET. TET would normally write a "transfer letter" which confirms that title to 400 gallons will transfer within TET facilities as follows: "C to B to A within TET facilities at Mt. Belvieu."
- 156. Another example of balancing out occurs when a "book transfer" can be made in lieu of a physical delivery. "Book-outs" or "book transfers" involve the process where two or more companies each owe to the other a common volume of an NGL product. Rather then deliver the product, each company agrees to adjust its "exchange book" (that is, an exchange volume tracking mechanism) by debiting or crediting the book to balance out. In a simple example A owes B 300 gallons. B owes C 200 gallons, C owes D 150 gallons, and D owes A 100 gallons. By booking out 100 gallons common to each obligation, the parties reduce their respective exchange balancing to each as follows:

 A now owes B 200 gallons, B now owes C 100 gallons, C now owes D 50 gallons, and D

is now in balance with A. A transfer letter is issued to each party to document the adjustment. No physical movement or delivery of the 100 gallons needs to take place, and each company's books are adjusted to show a bookout receipt or delivery.

- thousands of industry exchanges in order may involve as few as 100 gallons to as many as 6,000,000 gallons or more. Defendants routinely involved in all the above described types of transactions include at least Exxon-Mobil, Chevron, Texaco, Enron, Shell, Conoco, Phillips, Marathon, Unocal, Arco (Vastar), Meridian, BP Amoco, and Kerr-McGee, most likely include Devon and Anadarko, and likely include Oxy, Oryx and Total Fina. Many other non-defendant producers and marketing companies also routinely participate with the Defendants in such transactions, including Coastal States Marketing, Enterprise (Wanda Petroleum), Warren Petroleum (formerly Gulf), and Texas Eastern Transmission (LaGloria).
- 158. In addition to the periodic scheduling of the delivery and receipt of NGLs for exchange balancing, the Distribution Representatives are also involved with the following: (1) continuous monitoring of Gas Plant production to insure that projected supply volume estimates will be realized; (2) working very closely with the company trading personnel to insure that NGL supply/demand requirements as well as location demand requirements are met; (3) continuously furnishing traders with sufficient NGL volumetric information so that the traders can maintain company supply/demand balances through 3rd party purchase, sale and exchange contracts as well as "spot" market transactions; and (4) working with both the company's accounting and the exchange

partner's to correct invoice errors, volume errors, mis-bookings and other similar accounting irregularities.

These exchanges, buy/sells and exchange balances, which are common throughout the industry, involve a substantially large portion of the NGLs produced from the various gas processing plants. There are literally hundreds of locations where such exchanges take place including the tailgates of many Gas Processing Plants such as Yscloskey, Toca and Sea Robin, as examples. In addition, exchanges took place at major market centers including Mt. Belvieu, Texas; Giesmer, Louisiana; Hattiesburg, Mississippi and Conway, Kansas as well as at the plant gate of various crude oil refineries.

V. THE DEFENDANTS FRAUDULENTLY UNDERPAID FEDERAL ROYALTIES BASED ON NON-ARM'S LENGTH SALES TO AFFILIATED MARKETING ENTITIES

a. **Defendants with Marketing Affiliates**

- 160. Gas production companies often market their gas through affiliated marketing companies that are either subsidiaries of the production companies or their corporate siblings, (i.e., owned by the same corporate parent). At least defendants Total Fina, Marathon, CNG, Chevron, Devon, Oryx, Enron, Samedan, Anadarko, UPRG, Oxy, Vastar, Shell, Mobil, Burlington, Phillips, Amoco and Texaco market, or have marketed, their federal gas production through affiliated business entities.
- 161. Some of these defendants' affiliates which performed marketing services are as follows: Fina Natural Gas Company (affiliate of Total Fina); Carnegie Natural Gas Sales, Inc. and Carnegie Production Company (affiliates of Marathon); CNG Energy Service Corporation (affiliate of CNG); Dynegy, Inc. (formerly NGC Corporation, affiliate of Chevron); PennUnion Energy Service, L.L.C. (affiliate of Devon and predecessor Pennzoil Co.); Producer Energy Marketing, L.L.C. (affiliate of both and

Oryx); Enron Oil and Gas Marketing, Inc. and Citrus Trading Corporations (affiliates of Enron); Noble Gas Marketing, Inc. and Noble Trading Inc. (affiliates of Samedan); Anadarko Energy Services Co. (affiliate of Anadarko); Union Pacific Fuels, Inc (affiliate of UPRG); MidCon Corp. (affiliate of Oxy); Vastar Gas Marketing, Inc. (affiliate of Vastar); Coral Energy, L.P. and Shell Gas Trading Company (affiliates of Shell); Mobil Natural Gas, Inc. ("MNGI") and Duke Energy Trading and Marketing (affiliates of Mobil); Burlington Resources Trading, Inc. (affiliate of Burlington); Phillips Gas Company and GPM Gas Corporation (affiliates of Phillips); Amoco Energy Trading Company (affiliate of BP-Amoco); and Texaco Gas Marketing, Inc. (affiliate of Texaco).

162. It has been common in the industry for gas producers, including at least many of the Defendants, to enter into buy/sell contracts with their marketing affiliates.

Gas producers would delivery wetstream gas in the field to the marketing producer, retain ownership of the NGLs, and receive back a like volume of residue gas downstream.

Under such buy/sell contracts, the prices could be and were manipulated to show a value at the wellhead lower than the actual value of the residue gas.

b. Market Price

- 163. Gas prices vary depending on the terms and site for delivery. The federal Energy Information Administration ("EIA") collects data on the average market prices of unprocessed gas delivered at the wellhead and processed residue gas delivered at the "city gate" (i.e., at the point of delivery to the local distribution company ("LDC")).
- 164. Wellhead prices are for unprocessed gas sold at the wellhead. Wellhead gas is typically sold to gas marketing companies which process the wetstream gas and sell the residue gas after separating the NGLs and condensate. End-users generally do not buy wellhead gas, since it is unprocessed. Marketing companies typically sell processed residue gas through term contracts of more than 30 days, or to a lesser extent, on the spot market.

- 165. Over the last decade, the price of residue gas delivered to an end user under a long term contract has usually been at least \$1 per MCF greater than the price of gas at the wellhead. The price differential is significant even when transportation costs are deducted. EIA "city gate" gas data shows, for example, that 1996 average wellhead prices were \$2.17 per MCF while average city gate prices were \$3.34 per MCF.
- sold under short "spot" contracts. Spot prices refer to sales of residue gas delivered within 30 days. Although spot prices for residue gas are generally lower than long term prices, they are higher than wellhead prices for unprocessed gas. The wellhead price for unprocessed gas includes the value of NGL products based on their BTU content, while the city gate prices are for residue gas stripped of their valuable NGLs.

c. Royalty Value Is Not Based on an Affiliate's Purchase Price

- value (i.e., the value of the gas and/or gas products upon which the royalty payment is based) may never be less than the gross proceeds accruing to the lessee less applicable allowances. 30 C.F.R. §206.152(h) (unprocessed gas); 30 C.F.R. §206.153(h) (processed gas). The "gross proceeds" requirement is reinforced by the further requirement that royalty be based on "the total consideration actually transferred either directly or indirectly from the buyer to the seller of the gas." 30 C.F.R. §205.152(b)(1)(ii); 30 C.F.R. §153.206(b)(1)(ii), §153.206(b)(3).
- 168. Thus, when unprocessed gas or processed gas and gas products (<u>i.e.</u>, residue gas, NGLs, condensate) are sold in a <u>bona fide</u> arm's length transaction, those sales prices may be used to establish royalty value. To qualify as a true arm's-length sales transaction, the price and other terms must be "arrived at in the marketplace, between non-affiliated persons with opposing economic interests." 30 C.F.R. §206.151.
- 169. Sales by producer-lessees to affiliated marketing companies (<u>i.e.</u>, a related entities that acquire and market the lessee's production), are non-arm's length

transactions, since the affiliated producing and marketing entities have aligned - and not opposing - economic interests.

- 170. In cases where the gas has been processed under a non-arms-length contract and the residue gas is sold under a non-arms-length contract, federal law requires that the lessee value the gas at the greater of (a) the combined arm's length values of the residue (dry) gas, the downstream condensate and the NGLs, or (b) the value of the gas prior to processing. 30 C.F.R. 206.155. This alternative valuation requirement is referred to as "dual accounting."
- 171. In cases where no arms-length sale ever occurs such as "in-house" sales and transfers no actual market value has been determined. In the absence of an arm's length transaction, royalty values for residue gas and gas plant products (including NGLs and condensate) must be based on the first applicable factor of the following:
 - (a) the gross proceeds accruing to the lessee if those proceeds are equivalent to the gross proceeds derived from or paid under comparable arms-length contracts for other sales of like-quality gas in the same field;
 - (b) a value determined by consideration of other information relevant in valuing like-quality gas, including contracts for like-quality gas in the same field or nearby fields, posted prices for gas, prices received in arms-length spot sales, or other reliable public sources of price or market information; and
 - (c) the net back method or any other reasonable method to determine value. 30 C.F.R. §206.153(c).
- 172. As described above, federal regulations prohibit lessees from circumventing royalty valuation requirements through the non-arm's length "sale" of unprocessed gas to related marketing affiliates, which in turn process and resell the residue gas to third parties at a much higher price. Federal regulation does not permit royalty valuation to be based on the non-arm's length sales prices between the producing

and marketing affiliates, since the business concern as a whole realizes substantially higher "gross proceeds" from the third party sale.

- 173. To ensure that royalty values are not less than the gross proceeds accruing to the lessee, therefore, federal regulations require that when gas subject to royalty is sold to a "marketing affiliate" (which is defined by the regulation as "an affiliate of a lessee whose only function is to acquire only the lessee's production and to market that production") the regulations specify that the royalty value will be based upon the affiliate's arm's length resale price. 30 CFR .§206.152(b)(1)(i) (unprocessed gas) and §206.153(b)(1)(i) (processed gas)). Thus, a federal lessee may never lawfully lower its royalty obligations by valuing its production on the price of unprocessed gas it sells to its marketing affiliate. Instead, it must pay a royalty based on its affiliate's arms-length resale.
- Where the sale is to an affiliate which also markets production from other lessees, the royalty value still may never be less than the gross proceeds accruing to the lessee, and under certain circumstances the royalty value may actually be higher. 30 CFR §206.152(h) (unprocessed gas) and §206.153(h) (processed gas).
- 175. In other words, a federal lessee may not lawfully lower its royalty obligations by basing its royalty value on the price it sells to an affiliated company which then re-sells the gas at arms-length. Instead, it must pay a royalty based on its affiliate's arms-length resale.

d. Price Comparisons

176. Federal lessees are not required to report publicly the royalty values they assigned to their federal gas production. Most companies, however, publicly report their average sales price. Relators allege that this reported average sales price will never exceed their royalty price (since to do so likely would trigger MMS action).

- 177. The examples below show that defendants clearly have paid royalty based on sales or transfer prices paid by affiliated companies, and are not based on the gross proceeds realized by the affiliates' subsequent re-sales.
- 178. For example, defendant Burlington reports that it sells substantially all of its gas production at the wellhead under short term spot prices. At the same time, the company reports that more than half of the company's production was to direct sales customers and was transported through its pipeline affiliate. These customers are described as including electric utilities and industrial users.
- 179. Burlington's reported wellhead sales are clearly to the marketing affiliate where, relator Wright alleges, royalty values are calculated and paid, while the company's true profit is earned from the direct sales to local distribution companies ("LDCs") or to commercial or industrial customers.
- 180. Mobil similarly has marketed its product through its MNGI affiliate. The sales prices (on which relators believe royalty is paid) are described by Mobil as slightly below EIA reported wellhead prices. In contrast, MNGI resold the gas it "purchases" from Mobil at a substantial profit to thirty party LDCs and end users. Since 1996, Mobil has marketed much or all of its gas through it's marketing affiliate Duke Energy Marketing and Trading (of which Mobil owns 40%).
- 181. Similarly, Vastar reported in 1996, for example, an average gas wellhead price (determined by dividing total sales revenue, less purchase price, transportation expense and "aggregate gas marketing margin" by production volume) of \$1.81 per MCF. Relators allege that this was Vastar's average royalty price and is based on the wellhead sales to its marketing affiliate. The "aggregate gas marketing margin" was the portion of Vastar's "gross proceeds" on which it evaded its royalty obligations.
- 182. At the same time, Vastar reported that its average gas sales price for long term contracts was approximately \$2.49 per MCF. This represents the actual arms length sales price received by the marketing affiliate on which royalties should be calculated.

- 183. Similarly, Defendant URPG markets its natural gas through its wholly owned subsidiary, Union Pacific Fuels ("Fuels"). In 1996, Fuels sold 72 percent of UPRG's gas, including sales directed at a regionally focused city gate and industrial sales market in the northeastern United States.
- 184. Despite these substantial city gate and industrial sales, UPRG somehow reported an average sales price of \$2.01 MCF which is less than the low EIA national wellhead average price of \$2.17. Relators allege that this reported average sales price is based on the sales price between URPG and Fuels and that URPG based its royalty payments on this low price rather than the price obtained by sales made by Fuels.
- 185. Until 1998, Oxy sold its gas through wholly owned subsidiary, MidCon Corp. MidCon had a variety of long term contracts, and yet the average sales prices reported by Oxy were at or below the wellhead price until 1997, when the Oxy price exceeded the well head price by less than a dime per MCF.
- 186. In 1995-96, wholly-owned affiliates of defendant Oryx and Apache (together with a third production company) formed Producers Energy Marketing, L.L.C. to market substantially all of its members' gas under long-term contracts. The marketing company's profits or losses were to be apportioned according to the percentage of gas throughput contributed by each production partner making it a "variable ownership" marketing affiliate.
- 187. Defendant Total Fina, which sells its gas though its wholly-owned subsidiary, Fina Natural Gas Company, reported average sales prices that were even with the wellhead average in 1994, \$.02 above in 1995 and \$.23 above wellhead in 1996. At the same time, Fina's 1996 Annual statement reported that Fina Natural Gas had added \$.52 of value per MCF with marketing expenses of only \$.018.
- 188. Defendant Marathon, which also sells its gas through a marketing entity, has also followed the trend of reporting average sales prices that are within pennies of the

average reported well-head prices. For example, Marathon's average reported sales price for 1996 was 8 cents less than the EIA national average wellhead price.

- 189. Until the fall of 1996, Chevron marketed its gas through its Natural Gas Market Unit, which was not separately incorporated. Chevron sales in this period included a long term contracts with a number of utility companies which included reservation fees paid to the seller. Reported average sales prices for Chevron however for 1994 and 1995 were below wellhead average prices.
- 190. In the fall of 1996, Chevron joined in the creation of a new separately incorporated affiliated marketing entity, NGC Corporation (now Dynegy), which continued to market Chevron's gas. Chevron maintained a substantial equity position in, and control of, the new company.
- 191. Defendant Phillips Petroleum markets its gas through Phillips Gas
 Company and GPM Gas Corporation. GPM is a wholly owned subsidiary of Phillips Gas
 Company which is a wholly owned subsidiary of Phillips Petroleum.
- 192. The average reported sales prices, on which relators allege royalty has been calculated by Phillips are well under the EIA average wellhead prices. In 1995, for example, the sales price reported by Phillips was \$.18 below the wellhead average.
- 193. Until June 1997, Defendant Devon (then known as Pennzoil) sold its gas through its wholly owned subsidiary PennUnion Energy Services L.L.C. PennUnion then sold this gas to customers under long term minimum guarantee contracts.
- 194. Despite these contracts, the average sales price reported by Pennzoil in 1996 was \$0.25 below the average wellhead price of \$2.17 MCF.

e. False Claims Act Liability

- 195. The royalty value for gas which is sold by an affiliate cannot be less than the gross proceeds the affiliate receives from its arms-length sale of the gas.
- 196. MMS requires each lessee to file a monthly report (MMS-2014) of gas sales and royalty remittances for the preceding production month. This report requires

the lessee to state the sales values and royalty values at which the gas royalties have been calculated for royalty payment purposes.

- 197. Form MMS-2014 bears the following statement: "WARNING: This is to inform you that failure to report accurately and timely in accordance with the statutes, regulations or terms of the lease, permit, or contract may result in late payment charges, civil penalties, or liquidated damages being assessed without further notification. Intentional false or inaccurate reporting is subject to criminal prosecution in accordance with applicable Federal law(s)."
- 198. In addition, Form MMS-2014 has a signature line which bears the following statement: "I have read and examined the statements in this report and agree that they are accurate and complete."
- 199. As described above, defendants listed in paragraph 178 194 knowingly and consistently submitted MMS-2014 forms to the federal government that understated the sales values and royalty values owed for gas and gas products sold through marketing affiliates.
- 200. Defendants have violated the False Claims Act, 31 USC §3729(a)(7) by basing the royalty value they report to the United States on the transfer price paid by affiliated marketing companies, rather than on the sales price realized by the marketing affiliates when they sold the gas pursuant to arms-length contracts.

VI. DEFENDANTS FAILED TO USE APPROPRIATE ROYALTY VALUES FOR INTRA-COMPANY TRANSFERS AND CONSUMPTION OF GAS AND NGLs

a. In-House Consumption of Gas and NGLs

- 201. Many of the defendants are part of large corporate families with substantial industrial and petrochemical operations.
- 202. As a result, for these defendants, residue gas and the NGL production obtained through the defendants federal leases may be at least partially consumed "inhouse".

- 203. To protect the federal government's royalty interest in such circumstances, federal regulations require that in circumstances where no arms-length sale ever occurs, royalty values for residue gas or gas plant product (including NGLs) is to be based on the first applicable of the following: (1) the gross proceeds accruing to the lessee if those proceeds are equivalent to the gross proceeds derived from or paid under comparable arms-length contracts for other sales of like-quality gas in the same field; (2) a value determined by consideration of other information relevant in valuing like-quality gas, including contracts for like-quality gas in the same field or nearby fields, posted prices for gas, prices received in arms-length spot sales, or other reliable public sources of price or market information; and (3) the net back method or any other reasonable method to determine value. 30 CFR §206.153(c).
- 204. The netback method is defined as a means of calculating market value of gas at the lease.
- 205. Rather than using the above methods to determine the royalty value to determine that appropriate royalty value for gas and NGL product consumed "in-house", defendants have assigned transfer prices that are substantially below those mandated by the regulations.
- 206. For example, when ARCO created Vastar in October 1993, as part of its creation, Vastar contracted to sell all of its NGL product and some residue gas to ARCO "at agreed upon prices approximating current market values." The NGL contract expired March 31, 1996, and Vastar reported a 32 percent price increase realized on NGL sales for 1996 over 1995 sales.
- 207. Oxy Chemical Corporation is one of the largest chemical companies in the United States, consuming large quantities of NGLs produced by its affiliated companies, Oxy USA, Inc and Occidental Petroleum Company.
- 208. The sales prices the Oxy defendants report for their NGL transfers clearly reflect low spot market prices rather than actual comparable sales or any netback price.

209. Other defendants which consume federal gas and NGL products internally but report sales or transfer prices near or below low EIA wellhead prices include at least: Unocal, Mobil, Conoco, Amoco, Marathon, Texaco, Chevron, Phillips, Oxy, Total Fina and Shell.

b. False Claim Act Liability

- 210. The royalty value for gas and NGLs transferred under a non arms-length contract must be determined in accordance with lease provisions and regulatory standards, and not based on approximate wellhead prices.
- 211. The royalty value for gas which is sold by an affiliate cannot be less than the gross proceeds the affiliate receives from its arms-length sale of the gas.
- 212. MMS requires each lessee to file a monthly report (MMS-2014) of gas sales and royalty remittances for the preceding production month. This report requires the lessee to state the sales values and values at which the gas royalties have been calculated for royalty payment purposes.
 - 213. Form MMS-2014 bears the following statement:
 "WARNING: This is to inform you that failure to report accurately and timely in accordance with the statutes, regulations or terms of the lease, permit, or contract may result in late payment charges, civil penalties, or liquidated damages being assessed without further notification. Intentional false or inaccurate reporting is subject to criminal prosecution in accordance with applicable Federal law(s)."
- 214. In addition, Form MMS-2014 has a signature line which bears the following statement: "I have read and examined the statements in this report and agree that they are accurate and complete."
- 215. As described above, the above defendants knowingly and consistently submitted MMS-2014 forms to the federal government that understated the royalty values owed for gas and gas products consumed by the defendant.
- VII. DEFENDANTS EVADED FEDERAL ROYALTY OBLIGATIONS BY KNOWINGLY UNDERVALUING CONDENSATE BOUGHT AND SOLD PURSUANT TO IMPROPER "OVERALL BALANCE" AGREEMENTS

- 216. "Condensate" is composed of liquids formed by the condensation of natural gas after it is withdrawn from the reservoir in its gaseous state. Condensates are usually of 50° API gravity or higher, and are often more valuable than some crude oils. Most condensate is collected on the leases or offshore platform at separators upstream from measurement facilities at the point of royalty settlement. But some condensate is collected downstream from point of royalty settlement from "drips" and "scrubbers" as the wetstream gas is transported downstream from the wellhead by pipeline to plants for processing. Because this condensate remains in a gaseous state past the settlement point for oil royalty purposes it is not measured or reported as oil or oil condensate for royalty purposes. Instead such downstream condensate is treated for royalty valuation purposes as a component of processed gas, not oil royalty.
- 217. Condensate is also produced during the processing of wetstream gas at NGL processing plants. Separators and stabilizers at the processing plant collect condensate as natural gas is processed. Although condensate is collected separately during transport and processing, it often is recombined with the "raw make" NGLs at the processing plants for pipeline shipment to fractionation plants, after which the condensate is sold as natural gasoline. The largest fractionation center in the United States is at Mt. Belvieu Texas, near Houston, where much downstream condensate is marketed.
- 218. The amount of condensate produced downstream of the point of royalty settlement (both prior to and during processing) is considerable. For example, the Iowa Processing Plant in Louisiana produced approximately 200,000 gallons of downstream condensate per day in 1996.
- 219. Federal law requires that royalty must be paid on all gas condensate.

 When "drip" and "scrubber" condensate is recovered downstream of the point of oil royalty settlement without resort to processing, such condensate is deemed to be "processed gas" for royalty valuation purposes under the applicable federal regulations.

 When "separator" condensate is recovered during the processing of wetstream gas, such

condensate is considered to be a "gas plant product" and it, too, is deemed to be "processed gas" for royalty valuation purposes. Thus, irrespective of whether downstream condensate is produced before or during processing it still must be treated as "processed gas" for royalty reporting purposes as long as it is recovered after the point of oil royalty settlement.

- 220. Upon information and belief, defendants have improperly evaded their downstream condensate royalty obligations by treating condensate as a plant product at NGL plants operating under POP processing contracts. The percentage of condensate (up to 50% or more) allocated to the plant ownership as a processing fee thus escapes royalty obligation.
- 221. Upon information and belief, defendants also improperly evaded their condensate royalty payment obligations by illegally undervaluing condensate at artificially depressed "posted prices" and underreporting gross proceeds received pursuant to illegal "overall balance" agreements. As alleged below, at least defendants Amoco, Exxon, Shell, Texaco, Oxy, Mobil, Chevron, Conoco, Phillips, UPRG, Marathon, Unocal, Kerr-McGee, and Oryx entered into such improper agreements.
- 222. Defendants that participated in "overall balance" agreements agreed to sell downstream condensate to one another at "posted prices" that were substantially below the actual market values for such products. Pursuant to the agreements, the participants volumetrically "balanced" their posted-price purchases and sales, so that neither party would deliver more crude oil at depressed posted prices then it received back from the other party at equally depressed posted prices. "Balancing" occurred when a party purchased more condensate and crude oil than it sold to its counter-party. In that instance, the purchasing party normally "balanced" its account by delivering product in kind.
- 223. The parties worked hard to keep the overall balancing agreements volumetrically balanced, since the companies knew well that posted prices were below

the true market value of the crude oil and condensate. No producer wanted to be a "net seller" of crude oil and condensate at posted price, since they knew posted prices were artificially and systematically set below the market value for crude oil and condensate. The defendants usually always avoided paying cash for overdelivered crude oil and condensate, as this would have betrayed the true value of the crude oil and condensate. Nevertheless, at times, parties did settle imbalances with payments in cash at market prices for crude oil higher than posted prices.

- 224. Defendants' scheme demonstrates that the posted prices for condensate were artificially low. Internally, the defendants knew that posted prices were below market value for crude oil and condensate, so when the parties did reconcile imbalances with cash payments, their "balancing" transactions were priced at the condensate's <u>actual</u> market value. Thus, the posted sale price for condensates, on which federal royalties were calculated, was less than the total consideration given and less than the company's "gross proceeds."
- 225. Defendants that participated in the overall balance agreements improperly made condensate royalty payments based on their artificially depressed posted price, rather than on their actual market value. Defendants' royalty underpayments were made knowing that the posted prices were not reflective of either market value or gross proceeds.
- 226. During the period at issue, defendant Shell had unlawful overall balance agreements with, at least, defendants Amoco, Exxon and Texaco. As a direct result, Shell improperly underpaid condensate royalties based on artificially low posted prices, rather than the condensates' actual market price. In addition, Shell also took substantial portions of its condensate production to its own petrochemical and chemical plants for upgrade into petrochemicals and finished chemical end-products without paying royalties on the actual gross proceeds.

- 227. During the period at issue, defendant Exxon had unlawful overall balance agreements with, at least, defendants Amoco, Chevron, Conoco, Oryx, Marathon, Mobil, Phillips, Shell, Texaco and Unocal. Prior to 1993, Exxon's posted prices for condensate were more than 50 cents a barrel below actual market price. Because Exxon based its condensate royalty payments on the artificially low posted price, its condensate royalty underpayments during the pre-1993 period were extremely substantial. In the period since 1993, Exxon's posted prices for condensates decreased to between 25 cents and 50 cents a barrel below true market price. Exxon, thus, has continued to underpay its condensate royalty obligations by significant amounts.
- 228. In addition, the following defendants also had unlawful overall balance agreements by which they conspired to artificially depress posted condensate prices substantially below the actual market price. As a direct result, each of these defendants illegally underpaid condensate royalties by basing such federal payments on the artificially low posted prices, rather than the condensate's true market value.
 - Mobil had illegal overall balance agreements with, at least, defendants
 Amoco, Chevron, Conoco, Exxon, Oryx, Phillips, Shell, Texaco, Kerr-McGee and UPRG;
 - b. Amoco had illegal overall balance agreements with, at least, defendants Chevron, Conoco, Exxon, Phillips, Shell, Unocal and Texaco;
 - Conoco had illegal overall balance agreements with, at least, defendants
 Amoco, Chevron, Exxon, Oryx, Marathon, Mobil, Phillips, Shell, Texaco
 and Unocal; and
 - d. Unocal had illegal overall balance agreements with, at least, defendants
 Chevron, Amoco, Conoco and Mobil.

VIII. DEFENDANTS MADE UNLAWFUL DEDUCTIONS BEFORE CALCULATING ROYALTY VALUES

a. Market Fee Deductions

- 229. Operators of gas processing plants charge plant co-owners (including themselves) a marketing fee for selling NGLs produced at the plants. This fee typically has been about 1 cent per gallon, or 42 cents per barrel.
- 230. Defendants have deducted these fees from royalty payments as part of their claimed deductions for processing costs.
- 231. This practice is clearly illegal. The regulations and case law consistently have made clear that the lessee has the duty to market, and that no marketing costs can be deducted from royalty payments. Even the 1987 regulations applicable to leases executed prior to existing regulations provided that "[n]o allowance shall be made for boosting residue gas or other expenses incidental to marketing." 30 C.F.R. Sec. 206151(d) and Sec. 206106(b) (7-1-87 Edition).

b. Unlawful Deductions for Gathering, Treating and Other Costs

- 232. Defendants have taken deductions from royalty payments for costs of gathering, treating, dehydrating, compressing, "boosting," and storing, for both gas and NGLs.
- 233. All of such excessive deductions are unlawful because all of these activities are either part of the costs of "production" or part of the costs of "marketing." Neither production costs nor marketing costs are legally deductible from royalty payments.

c. <u>Deductions for inflated or Fictional Transportation and Processing</u> <u>Costs</u>

- 234. Defendants have underpaid gas/NGL royalties by calculating royalty values based on deductions in excess of "actual" and "reasonable" transportation and processing costs.
 - 235. These improper schemes include the following devices:
 - A. Taking transportation deductions for OCS gas based on "ceiling" FERC rate schedules instead of lower actual payments or cost.

- B. Failure to credit pipeline discounts, allowances, rebates and refunds.
- C. Failure to allocate transportation costs between different lease products as required by the MMS regulations in full-stream pipeline situations.
- D. "Double-dipping" or "triple-dipping" by deducting the same transportation costs from gas, NGL, and/or oil royalty payments.
- E. Taking transportation and/or processing deductions based on a flat percentage of revenues or proceeds instead of lower actual costs.
- F. Failing to allocate NGL plant costs between deductible processing costs and non-deductible costs of (1) dehydration and removal of other non-saleable components (such as nitrogen, CO2, H2S, etc.), (2) mechanical separation costs (e.g., of condensate), (3) compression (both fuel and depreciation), and (4) marketing, storing, transferring and handling.
- G. Deduction of overhead charges by non-operators of processing plants and pipelines, in addition to the allowable overhead charges of the operators.
- H. Padding of construction costs of pipelines and NGL plants to increase depreciation allowances and rate-of-return amounts.
- I. Transferees of plant interests taking depreciation deductions based on their acquisition or other costs instead of the transferors' original costs as required by the MMS regulations.
- Failing to include proper amounts for salvage values in taking depreciation deductions.
- K. Taking unauthorized deductions for plant volume reductions attributable to non-saleable components, the fuel used in removing them, and for compression fuel.

- L Taking unauthorized deductions for plant volume reductions where royalty is being calculated on a processed basis, and the PVR is reflected in the reduced volume of residue gas paid for by the buyer, upon which residue gas royalties are being calculated.
- M. Taking both expense deductions and depreciation deductions with respect to the same items of plant or pipeline repairs modifications, additions or improvements.
- 236. Defendants have also used the fictional device of "backhauling" to abuse the transportation deduction and improperly lower royalty payments.

IX. DEFENDANTS ENGAGED IN ADDITIONAL IMPROPER SCHEMES TO LOWER THEIR ROYALTY OBLIGATION

a. Gas Royalty Underpayments by Volumetric Production Payments

- 237. Certain defendants, including Enron, have evaded gas royalties through the device of volumetric production payments.
- 238. The buyer of a volumetric production payment is entitled to receive a specified volume of gas production over a period of time. He pays in advance of the actual production, usually at premiums over spot or index prices for the long-term, assured supply. As production accrues, the lease owner owes royalties based on both the premium price paid and the time-value of the money received prior to production.
- 239. Instead, the defendant lease owners have paid royalties on the basis of the lower index prices as the production accrues, and without accounting for the benefit of the time-value of money due to payment in advance of production.

b. Failure to Pay Royalties on Contract "Buy Downs"

240. In the later half of the 1980s, many gas buyers which had entered into long-term contracts with defendants to buy OCS and other federal gas at so-called "Section 102" (of the Natural Gas Policy Act of 1978) prices - which often attained a

range of \$4.00 - \$12.00 per MCF - "brought down" those contracts from defendants after gas prices plummeted beginning at the end of 1985.

- 241. The "Buy Down" Agreements provided that, for large cash payments by the buyers to the defendant sellers (aggregating hundreds of millions of dollars), the future gas prices under the contracts would be reduced to lower levels.
- 242. Defendants, concealing the existence of these "buy-downs" from MMS, have paid royalties thereafter only on the reduced contract prices, without allocating the huge cash buy-down payments to the gas produced during the remaining terms of the contracts as required by federal law and regulations.

c. Retroactive Upward Price Adjustments and Refunds

- 243. Defendants have evaded gas/NGL royalties by failing to make royalty payments on retroactive upward payment adjustments by gas/NGL purchasers made subsequent to the original payments on which Defendants had calculated and made royalty payments.
- 244. Defendants have evaded gas/NGL royalties by failing to make royalty payments on refunds, rebates, credits and retroactive downward price adjustments by carriers and processors.

COUNT I

False Claims Act -31 U.S.C. Sec. 3729(a)(7)

- 245. The preceding factual statements and allegations are incorporated herein by reference.
- 246. Defendants have knowingly made, used, or caused to be made or used, false records or statements to conceal, avoid or decrease obligations to pay or transmit money or property to the Government, namely the gas/NGL royalties legally owed or payable to the Government. As a result of these false statements, the United States has suffered, and continues to suffer, substantial damage.

247. These false and fraudulent records and/or statements have been made in documents including but not limited to Forms MMS-2014s, MMS-31601, MMS-4054s, MMS-40551, MMS-40563, MMS-40583, MMS-4109, MMS-4295 and other MMS statement forms. The number of such false statements may exceed 10, 000,000.

COUNT II

False Claims Act – 31 U.S.C. Sec. 3729(a)(3)

- 248. The preceding factual statements and allegations are incorporated herein by reference.
- 249. Defendants have conspired to defraud the Unites States Government by making or causing to be made false records or statements to conceal, avoid or decrease their royalty obligations to the United States. As a result, the United States has suffered and continues to suffer substantial damage.

DEMAND FOR JURY TRIAL

250. Relators demand a trial by jury.

PRAYER

WHEREFORE, Relators, on behalf of themselves and the United States, requests that this Court:

- 1. Enter judgment against each Defendant in an amount equal to three times the amount of damages the United States has sustained as a result of each Defendant's actions, as well as a civil penalty against each Defendant of \$11,000 for each violation of 31 USC §3729;
- Award Relators the maximum amount allowed pursuant to 31 USC
 3730(d);
- 3. Award Relators all costs and expenses in this action, including attorneys' fees.
 - 4. Order such other relief as the court deems just and proper.

 Respectfully Submitted,

By:

Claude E. Welch

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CERTIFICATE OF SERVICE

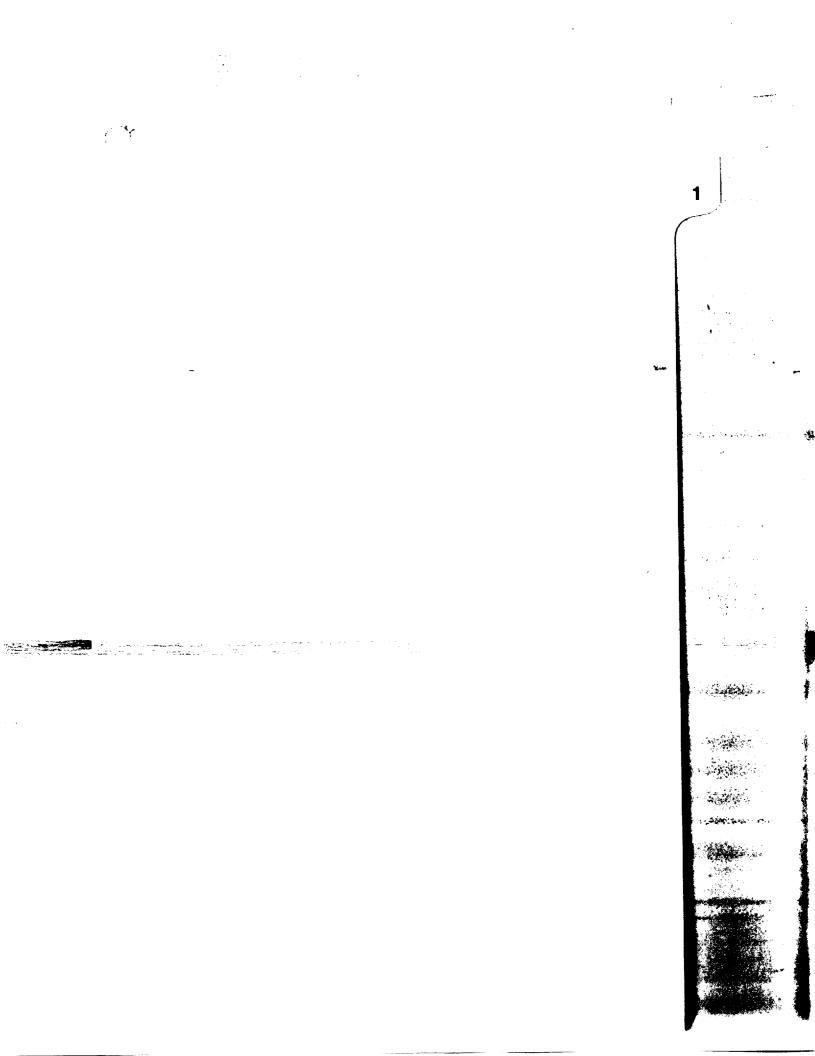
I hereby certify that a copy of the foregoing Third Amended Complaint was mailed this 13th day of June, 2000 to:

Michael D. Granston Civil Division United States Department of Justice PO. Box 261 Ben Franklin Station Washington, DC 20044

and

Matt Orwig Assistant United States Attorney 350 Magnolia Avenue Beaumont, Texas 77701-2237

Claude E. Welch



Top Corporations Producing Gas from Federal Lands Based on Top 25 Corporations by Royalty Value or by Gas Production 1995 - 1999

			Gas Volum	ne ¹			Percent of Total Volume,	All Companies
	1995	1996	1997	1998	1999	5 Year Total	Weighted Average	Cumulative
			(Mich)	Marine E			(Percent)	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1. CHEVRON	662.372.456	1,712,941,874	1,553,278,666	835,668,930	851,069,101	5,615,331,026	11.47 %	11.47 %
2. AMOCO	780,923,538	847,451,819	714,535,989	642,434,282	670,800,140	3,656,145,567	7.47	18.94
3. TEXACO	705,947,265	650,422,932	611,992,039	509,707,878	460,220,538	2,938,290,653	6.00	24.95
4. SHELL	798,829,054	815,654,030	499,422,531	348,341,866	394 066 676	2,856,314,156	5.84	30.78
5. EXXON	418,741,732	424,353,219	492,709,602	451,813,147	511,529,947	2,299,147,648	4.70	35.48
6. CONOCO	494,211,430	478,939,139	455,639,657	383,041,498	429,117,880	2 240 949 604	4.58	40.06
7. UNION	480,230,382	430,428,747	388,199,718	371,838,624	361,896,810	2 032 594 281	4.15	44.21
8. MERIDIAN	253,734,421	368 128 497	383,790,257	474,496,719	394,873,648	1.875.023.543	3.83	48.05
9. MOBIL	360,348,953	313,068,471	256,281,430	210,285,882	180,335,614	1,320,320,350	2.70	50.74
10. VASTAR	266,722,706	244,443,633	206,840,157	217,224,619	298,133,301	1,233,364,416	2.52	53.26
11. PHILLIP	257,182,873	255,964,019	220,356,354	139,212,908	236,635,795	1 109,351,949	2.27	55.53
	180,641,182	195,559,437	248,162,643	193,015,843	163,970,059	981,349,165	2.01	57.54
12. PENNZOIL			138,487,640	210,645,668	256,179,599	916,270,985	1.87	59.41
13. MARATHON	197,702,704	113,255,373 154,206,749	158,421,482	160,414,289	117,543,765	734,216,446	1.50	60.91
14. SAMEDAN	143,630,161			129,648,320	181,207,822	594,823,343	1.22	62.12
15. CNG	65,426,973	105,415,988	113,124,241	137,439,102	157,982,658	587,977,585	1.20	63.33
16. NEWFIELD	82,870,045	96,074,232	113,611,549			536,958,698	1.10	64.42
17. KERR-MCGEE	89,327,269	94,617,495	89,376,416	96,807,796	166,829,723	535,945,538	1.10	65.52
18. MURPHY	117,337,364	102,093,324	126,592,231	96,863,093	93,059,526		0.98	66.49
19. COASTAL	141,740,215	40,683,119	37,381,124	117,002,655	140,695,524	477,502,637	0.93	
20. AMERADA	99,715,601	85,904,297	70,311,992	67,987,511	130,582,192	454,501,593		67.42
21. UNPCFIC	127,422,731	64,701,903	48,948,888	121,787,743	82,601,841	445,463,107	0.91	68.33
22. APACHE	104,754,94@	85,703,131	88,506,85 9	72,659,873	93,098,260	444,723,073	0.91	69.24
23. ORYX	101,116,245	. 110,683,469	113,672,753	94,049,638	•	419,522,105	0.86	70.10
24. ENRON	60,136,233	76,153,316	71,076,837	88,238,492	121,427,870	417,032,747	0.85	70.95
25. ZILKHA	83,509,386	87,011,780	85,657,694	68,531,292	78,076,654	402,786,806	0.82	71.77
26. DEVON	86,806,803	67,843,156	71,498,465	82,611,655	90,251,270	399,011,34 9	0.82	72.5 9
27. WALTER	80,165,405	95,529,810	74,014,343	59,812,252	66,069,161	375,590,970	0.77	73.36
28. QUESTAR	61,869,652	63,882,956	60,635,452	61,453,546	62,772,868	310,614,472	0.63	73.99
29. YATES 1	37,897,697	57,093,383	63,146,490	68,828,151	64,968,114	291,933,835	0.60	74.5 9
30. ELF	68,383,905	69,922,194	67,196,634	75,177,841	-	280,680,574	0.57	75.16
31. BPEXPLO	•	•	•	112,208,452	118,181,162	230,389,613	0.47	75.63
32. BARRETT	20,883,227	30,783,138	36,523,092	50,620,714	42,783,863	181,594,033	0.37	76.00
33. ANADARKO	•	•	63,959,885	65,800,316	50,979,756	180,739,956	0.37	76.37
34. POGO	74,086,900	-	96,887,003		-	170,973,903	0.35	76.72
35. SANTAFE	•	15,275,637	22,387,490	29,453,242	94,387,287	161,503,656	0.33	77.05
36. BURLINGTON	21,257,457	20,349,549	105,603,039	•	-	147,210,045	0.30	77.35
37. CROSST	•	-	•	72,106,581	71,761,503	143,868,084	0.29	77.65
38. NORCEN		72,930,308	67,494,832	•	•	140,425,140	0.29	77.93
39. FORCENERGY			•	75,381,158	60,403,930	135,785,088	0.28	78.21
40. SANCHEZ	35,361,701	35,122,382	30,094,095	20,098,587	•	120,676,765	0.25	78.46
41. PRESIDIO	44,277,041	29,118,128	23,699,675		•	97,094,843	0.20	78.66
42. NORWEST	34,973,893	34,909,600	19,457,813		-	89,341,306	0.18	78.84
43. SNYDER1	· · · · · · · · · · · · · · · · · · ·		19,191,170	26,141,092	32,548,486	77,880,728	0.16	79.00
44. OXY	·	75,501,319		•		75,501,319	0.15	79.15
45. LAEXPLR	21,226,715	20,318,797	22,835,778		_	64,381,290	0.13	79.28
46. WASHENG	£1,220,110	20,010,101	19,726,870	22,226,108	20,916,168	62,869,146	0.13	79.41
47. SONAT	-	60,412,541	,,,,,,,,		,-,-,,	60,412,541	0.12	79.54
48. TESORO	-	25,026,926	20,434,116	13,180,571		58,641,613	0.12	79.65
	-	20,020,020	E0,707,110	23,518,002	34,687,678	58,205,680	0.12	79.77
49. MCMURRY 50. PG&E	31,728,787	23,319,188	-	20,010,002	54,554,544	55,047,975	0.11	79.89
Total, these companies	31,726,767 7,693,495,052	8,751,198,804	8,171,164,990	7,097,775,938	7,382,646,185	39,096,280,948	79.89 %	
Total, all companies	9,588,125,004	9,994,802,711	10,252,389,750	9,552,307,739	9,552,307,739 2	48,939,932,943		

[&]quot;-" imply that the company was not one of the top 25 producers from federal lands either by royalty value or by gas production in that year.

Source: Minerals Management Service.

¹ Includes production from Federal onshore lands (including Indian lands), and Federal offshore waters.

² This is the 1998 total volume - data for 1999 is not yet available.

Based on Top 25 Corporations by Royalty Value or by Gas Production Sorted by Total Gas Volume -- Column (6) 1995 Royalty Payments and Gas Production from Federal Lands

			Rovalty Payments			Gas Volume²		Implied Price	Price	Perce	Percent of Total Volume, All Compenies	ıme, All Com	Senies
	Company	Onshore	Offshore	Total	Onshore	Offshore	Total	Onshore	Offshore	Onshore	Offshore	Total	Cumulative
•						(Md)		CONTRACT			(Percent)	46	
		(1)	(2)	- 21	•	(9)	(4)+(5)	(1)*8′(4)	(8) (2)*6V(5)	6	(10)	(11)	(12) Cum. (11)
	1 1 2 1 2		£110 44K 683	C110 445 683		798.829.054	788.829.054		\$0.90		8.33 %	8.33 %	8.33 %
<u>.</u>	SHELL	\$27 844 044	49 486 473	72.330.518	393,540,161	367, 383, 377	780,923,538	\$0.46	0.77	4.10 %	4.04	8.14	16.48
i e	TEXAGO	8 886 395	79 305 286	58.191.661	88,688,325	617,258,941	705,947,265	0.80	0.77	0.92	6. 44.	7.38	23.64
· •	CHEVRON	13.834.575	77,888,418	91,822,991	189,730,028	472,642,428	662,372,456	0.59	96:0	1.98	4 .83	6.91	30.75
ivi	CONOCO	19.496.728	20,301,550	39,798,277	312,469,195	181,742,234	494,211,430	0.50	0.67	3.26	8:	5.15	95 95 95 95 95 95 95 95 95 95 95 95 95 9
6	UNION	3,108,063	86,991,518	70,099,581	70,779,892	409,450,480	480,230,382	0.38	98.0	0.74	4.27	50.6	9. r
7	EXXON	4,635,516	55,003,874	59,639,390	58,555,538	360,186,196	418,741,732	0.63	0.82	0.01	3.78	15.4	07 CF
60	MOBIL	5,708,872	48,911,863	54,620,755	51,925,853	308,423,101	360,348,953	98.0	80	X 6	3.22	5 C	5 2
œ	VASTAR	2,571,701	45,200,463	47,772,164	24,021,919	242,700,787	268,722,706	98.0	2.5	6 8	2 F	2.70	8 S
₽.	PHILLIP	11,816,233	21,136,128	32,962,361	132,865,591	124,317,282	6/9/701/707	5.6	3	9 4	3 '	8	57.15
Ŧ.	MERIDIAN	28,530,832	• ;	29,530,832	253,734,421	, 40,000	124,427,562	S	. 4	8 6	8	90.	59.21
7	MARATHON	9,151,363	23,125,684	32,277,028	102,603,623	190,000,000	187,702,704		3 5	} '	188	98	90.19
ij	PENNZOIL		34,629,967	34,629,867	•	160 641, 162	100,041,102		2	•	6	8	62.29
7	SAMEDAN	• !	31,440,576	31,440,576	, 000 000	143,030,101	141.740.161	. 42	7	0.49	68	48	64.07
ž.	COASTAL	7,494,510	24,396,718	31,883,328	46,663,330	74 805 282	127 422 731	170	107	0.58	0.75	1.33	65.40
6	UNPCFIC	2,848,708	12,782,256	12,040,00	204' / 10'cc	117 327 364	117 337 364	,	98	<u>'</u>	1.22	1,22	66.62
. 4	MURPHY	•	10,008,37	77 137 835	•	104 754 949	104 754 949	•	58.	ı	1.09	90	67.71
į į	AFACHE	, 689 0	18 014 058	19 467 788	29 109 584	72 006,880	101,116,245	0.70	14.	0:30	0.75	8	68.77
<u> </u>	AMERADA	6,000,1 &	27.350.386	27.350.386	'	99,715,801	99,715,601	•	. 8	•	1.04	2	69.81
; <u>r</u>	KERRIMOSE	•	15,429,498	15,429,498	•	89,327,269	89,327,269	•	<u>5</u>	•	0.83	0.93	70.74
8	DEVON	8.510,457		8,510,457	86,806,803	•	86,806,803	0.78	•	0.91	٠ ;	16.0	8.8
2	ZILKHA	•	21,128,829	21,128,629	•	83,509,386	83,509,386	•	1.52		0.87	0.87	75.7/
7	NEWFIELD	•	17,585,700	17,586,700	•	82,870,045	82,870,045	•	1.27	,	8 6	8 8	75.38
52	WALTER	•	18,973,662	18,973,662	•	80,185,405	80,165,405	•	76.		4 5	1.0	74 90
%	900	٠	15,286,487	15,286,487	•	74,086,900	74,086,900	• 1	1 33		17.0	0 71	75.70
, 1	ELF	•	15,118,565	15,118,365		65 426 973	65.426.973		98	•	0.68	0.68	76.38
ġ g	CAC	8 184 24R	London'ni	8 164 248	61.869.652	,	61,869,652	1.06	٠	0.65	,	0.65	77.03
8	ENRON	8,034,277	•	8,034,277	60,136,233		60,136,233	1.07	•	0.63	٠	0.63	77.68
8	PRESIDIO	3,056,567		3,056,567	44,277,041	•	44,277,041	0.56	•	0.48	٠	0.46	/8.12
8	YATES 1	3,877,085	٠	3,877,085	37,897,697	•	37,897,697	0.82	•	0.40	•	0.40	18.51
g	SANCHEZ	6,284,423	•	6,264,423	35,361,701		35,361,701	1.42	•	0.37	•	0.37	8 8
ă	NORWEST	3,115,836	•	3,115,836	34,973,893		34,973,883	0.71		0.36	•	8 8	07.67
Š	PG&E	2,035,731	•	2,035,731	31,728,787	•	31,728,787	15.0	•	0.33	•	5.0	9 6
8	BURLINGTON	3,441,865	•	3,441,865	21,257,457	•	21,257,457	3 5		7.0	•	27.0	8 2
37	LAEXPLR	3,436,623	•	3,436,623	21,228,715	•	CL7,822,12	3.5	•	2.5	•	2,00	20.08
Ŕ	BARRETT	3,805,645	•	3,605,645	20,883,227	•	777.883.77	8 8	. ,	2.00		2 6	
	R.MNCRF	2,468,774	4	2,469,774	4,608,180	- 100 040 040	7 000 100 733	4.48	•	3	Ī	80.08	
	these Companies	\$200,595,097	\$921,714,536	\$1,122,309,633	2,277,552,313	5,426,000,818	7,586,105,232						
Total,	Total, all Companies						9,588,125,004						

Source: Minerals Management Service.

[&]quot; - " imply that the company was not one of the top 25 producers from federal lands either by royalty value or by gas production

¹ includes payments for gas and gas plant products, but not condensate or oil.
² includes production from Federal onshore lands (including indian lands), and Federal offshore waters.

Based on Top 25 Corporations by Royalty Value or by Gas Production Sorted by Total Gas Volume – Column (6) 1996 Royalty Payments and Gas Production from Federal Lands

			Royalty Payments ¹			Gas Volume ²		Implied Price	Price	Perce	nt of Total Vo	Percent of Total Volume, All Companies	penies
	Company	Onshore	Offshore	Total	Onshore	Offshore	Total	Onshore	Offshore	Onshore	Offshore	Total	Cumulative
			(Cotten)			(1040)		(SALO)				(Percent)	
	-	(2)	(2)	(3)+(1)	€	· . ©	(6) (4)+(5)	(1) "B'(4)	(8) (2)~&/(5)	e	(10)	£)	(12) Cum. (11)
•	1000 GTG	£22 ABO BR3	4168 ON2 251	\$191.583.114	1.117.259.459	595,682,415	1,712,941,874	\$0.16	\$1.70	11.18 %		6 17.14 %	17.14
- ^	AMOCO	33 511 240	63.007.907	116,519,147	437,908,051	409,543,568	847,451,619	0.61	1.22	4.38	4.10	8.48	25.62
iri	SHELL	,	201,750,122	201,750,122	•	815,654,030	815,864,030	•	1.48	. ;	8.16	8.16	33.78
÷	TEXACO	12,335,392	128,634,302	140,969,693	89,429,535	560,993,397	650,422,932	1.10	82.	98.0 1	5.61	6.51	40.29
ĸń	COMOCO	29,716,392	23,704,464	53,420,857	353,985,327	124,953,811	478,939,139	0.67	4.7	7 G	67.5	\$ F	85.08 85.08
6	CNON	3,678,390	103,382,955	107,061,345	59,425,691	3/1,003,056	430,426,747	0.30	9.6	250	99	4.25	53.63
~ •	EXXON	6,136,529	113,063,562	84.451.506	276.249.807	91.878.689	368,128,497	1.48	2.18	2.78	0.92	3.68	57.31
ó a	MOBIL	0.030,050	76.615.774	63,565,774	60,526,274	252,542,197	313,068,471	0.92	1.82	0.61	2.53	3.13	60.45
ē	PHILLIP	17,960,483	35,276,011	53,236,493	140,675,717	115,288,303	255,964,019	1.02	<u>z</u>	<u>-</u>	1.15	2.58	63.01
Ξ.	VASTAR	4,894,802	63,754,051	68,648,853	31,227,733	213,215,900	244,443,633	1.25	£. 5	E	2.3	\$ 8	8 5 4 7
5	PENNZOIL	•	57,950,286	57,950,286	•	195,559,437	196,558,437	•	9 6		8 3	<u> </u>	90
Ę	SAMEDAN	• ;	61,618,740	61,618,740		154,206,749	154,205,749	. 20	Q-7		5	<u> </u>	8 52
=	MARATHON	13,256,101	. !	13,256,101	113,256,373	747 300 00	113,230,373	4 6	, 13	22.0	8	113	71.19
5	ORYX GHG	3,308,218	33,510,947	36,819,165	4C/ 18C 47	105 415 088	105.415.988	3 '	2.68	,	8	8	72.25
2 :	CNG	•	247,108,510	78,109,316		102 093 324	102.083.324	•	8		2	1.02	73.27
<u> </u>	MEMERIE	•	36 135 370	36.135.370		96 074 232	96,074,232	•	2.26		96.0	96.0	74.23
<u> </u>	WALTER	•	35,475,748	35,475,748		96,529,810	95,529,810	,	2.23	•	98	0.96	75.19
Ŕ	KERR-MCGEE	•	27,142,649	27,142,649	•	94,617,495	94,617,495	•	1.72	•	90	96.0	76.13
7	ZILIGHA	•	36,704,585	36,704,585	•	87,011,780	87,011,780	r	2.53	•	0.87	0.87	1.00
2	AMERADA	•	33,367,252	33,367,252		85,904,297	86,904,297	•	2.33	•	8 8	98	8 5
23	APACHE	•	34,166,576	34,166,576		86,703,131	86,703,131	, 60	7.38	. 47.0	8 '	92.0	70.72
%	ENRON	12,208,384	, 000 000 00	12,208,384	arc,561,87	76 504 340	75,504,316	07.1	. 8	,	0.76	0.76	80.24
Ç Z	CAY	•	10 541 202	10 541 202		72,930,308	72.930,308	,	161	•	0.73	0.73	80.87
2 2	FLF	•	27,894,790	27,894,790	•	69,922,194	69,922,194	•	2.39	•	0.70	0.70	81.67
58	DEVON	10,189,924	•	10,189,924	67,843,156		67,843,156	1.20	•	89.0	•	0.68	82.34
8	UNPOFIC	4,172,013	•	4,172,013	64,701,903	•	64,701,903	0.52	•	9 4	•	8 2	82.58
ස් ස	COLLAT	10,829,241		10,829,241	63,882,956	60 412 541	60.412.541	<u> </u>	2.35	Š '	09:0	99.	84.24
8	YATES 1	8.042.726	tonionnine	8.042.726	57,093,383		57,080,383	1.13	•	0.57	•	0.57	84.81
8	COASTAL	8,084,782	•	8,084,782	40,683,119	1	40,683,119	1.59	•	0. 14.	•	0.41	85.21
हं	SANCHEZ	9,423,083	•	9,423,083	35,122,382	•	35,122,382	2.15	•	0.35	•	0.35	85.57
B	NORWEST	4,940,696	i	4,940,696	34,909,600	•	34,909,600	1.13	•	99.3	•	98.0	65.91
Ŕ	BARRETT	7,485,988	•	7,485,986	30,783,138	•	30,783,138	8 6	1	16.0	•	5.0	27.00
37.	PRESIDIO	2,365,000	•	2,365,000	29,118,128	•	29,118,128	8 6	•	87.0	•	92.0	96.34
Ħ	TESORO	6,464,738	•	6,464,738	25,028,926		25,026,926	2.07	•	670	•	9 6	2 2 8
8	POLE	1,700,032	•	1,700,032	23,319,188	•	23,319,166	0.75 80 46		3 6	• •	200	87.20
₹:	BURLINGTON	3,427,962	•	3,427,302	20,348,348	• •	20,348,04	3 2		0.20	•	0,0	87.40
įŞ	CANTAEE	3,422,203		4.060.180	15.275.637		15,275,637	2.13	1	0.15	•	0.15	87.56
. 78	_	\$302,281,745	\$1,559,570,752	\$1,861,862,497	3,365,456,803	5,385,742,000	8,751,196,804					87.56 %	
Total,	Total, all Companies						9,994,802,711						

^{..} imply that the company was not one of the top 25 producers from federal lands either by royalty value or by gas production.

Includes payments for gas and gas plant products, but not condensate or oil.

Includes production from Federal onshore lands (including Indian lands), and Federal Offshore waters.

Based on Top 25 Corporations by Royalty Value or by Gas Production 1997 Royalty Payments and Gas Production from Federal Lands Sorted by Total Gas Volume -- Column (6)

		O	Gas Prod Payments1			Ges Volume ²		Implied Price	Price	Percer	Percent of Total Volume, All Compenies	me, All Com	Senies
	Company	Onshore	Offshore	Total	Onshore	Offshore	Total	Onshore	Offshore	Onshore	Offshore	Total	Cumulative
	1		(College)					CANA		では、		1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1	で長れ種
	-	(1)	(2)	(3) (1)+(2)	(4)	(2)	(6) (4)+(5)	(7) (1)*8/(4)	(8) (2)*6/(5)	6)	(10)	(11)	(12) Cum. (11)
-	NORVEN	\$27.302.686	\$169.933.110	\$197,238,796	967,753,520	595,525,146	1,553,278,666	\$0.23	\$1,71	9.34 %	5.81 %	15.15 %	15 15 %
. 4	AMOCO	38,761,829	74,997,677	113,759,506	395,762,678	318,773,311	714,535,989	0.78	-	3.86	3.11	6.97	22 12
6	TEXACO	17,509,704	124,016,393	141,526,097	98,270,912	513,721,127	611,992,039	54.	5	96 0	5.01	76.5 78.4	50.02 30.02
4	SHELL		117,785,885	117,785,885		499, 422, 531	499,422,531	. 5	4. 0	, 640	4 A	9 4	37.77
ıć i	EXXON	6,797,264	142,266,442	149,063,706	53,954,353	436,735,249	452,709,602	5 6	9 6	3.57	980	4 4	42.21
voi t	CONOCO	34,408,401	14,222,338	46,030,738	300,780,780 43 835 838	344 363 879	388 199 718	92.0	1.68	0.43	3.36	3.79	46.00
~ 6	NO.	4,154,032	207,182,08	400,101,004	280,802,833	102 987 844	383,790,257	1.98	2.24	2.74	9	3.74	49 74
sj d	MERICIAN	797,107	30,327,370	70 874 538	48 484 524	207 796 906	258 281,430	1.21	1.83	0.47	2.03	2.50	52 24
o Ç	MODIL DENNIZON	DO# '7#C' /	67,662,634	67 662 634	10,101,101	248,162,643	248,162,643	•	2	,	2.42	2.42	54 66
2 5	PHILIP	25 233 512	24 112 483	49.345.995	136,149,173	84,207,182	220,356,354	1.48	1.72	1.33	0.82	2.15	56.81
12	VASTAR	7.041.346	58,773,325	65,814,672	30,705,988	176,134,169	206,840,157	1.83	2 00	0:30	1 72	2.02	58.83
5	SAMEDAN		63,112,851	63,112,851	•	158,421,482	158,421,482	•	2.39	• !	1.55	1.55	60.37
Ţ	MARATHON	16,957,900		16,967,900	138,487,640		138,487,640	0.98		1.35	. 4	5. 5 5. 5	57.72
ξį	MURPHY	•	38,792,578	38,792,578	•	126,592,231	126,592,231	' (1.84	, ,	1.23	55	62.50
6	ORYX	3,229,322	34,828,943	38 058,265	24,624,097	89,048,656	113,672,753	S	2.35	0.24	ò ;		2 Y 4 2
17.	NEWFIELD	i	43,414,564	43,414,564	•	113,611,549	113,611,549	•	57.5		1.4		66.78
Φ	SNG SNG	•	43,472,505	43,472,505	•	113,124,241	113,124,241	. !	2.31	, 8	0 10	2 5	00 70
ð.	BURLINGTON	4,764,952	27,809,304	32,574,256	22,863,976	82,739,063	105,603,039	/ 9.L	2.02	0.22	900	50.0	, g
ଷ୍ପ	9060	•	24,457,528	24,457,528		96,887,003	90,9507,003	•	7.5		26.0	76.0	69 13
ಸ	KERR-MOGEE	•	26,221,790	26,221,790	,	89,376,416	03,070,00		2,70		9	98	86 69
ដ	APACHE		37,625,328	37,625,328		86,506,838	86,000,008		24.5	•	0.80	0.84	70.82
R Z	ZILKHA		34,320,233	34,320,233	•	74 014 343	74 014 343	•	2.50		0.72	0.72	71 55
7	WALIEK	. 000 020 77	30,012,383	30,644,333	74 409 465	200	71 498 465	168	; '	0.70	'	0 70	72 24
8 8	200	46.72,008	•	15,737,065	71 076 837		71.076.837	177		69.0	•	69 0	72.94
ė ;	ANACIDADA	10,132,040	28 281 312	26 281 312		70.311.992	70,311,992		2.24	•	0.69	69.0	73.62
; F	NO BON		18,796,193	18,796,193	,	67, 494, 832	67,494,832	•	1.67	٠	99.0	99.0	74.28
8	73		27 480,253	27,480,253	•	67,196,634	67,196,634	•	2.45	١	99.0	990	74.94
8	ANADARKO	•	27,783,145	27,783,145	•	63,959,885	63,959,885	•	261		0.62	0 62	75.36
ક્	YATES 1	9,629,880	•	9,629,880	63,146,490	ř	63,146,490	1 22	•	0.62	•	0.62	81.67
35	QUESTAR	14,278,441		14,278,441	60,635,452		60,635,452	1.88	•	0.09		0.09	77.24
8	UNPOFIC	4,932,012	•	4,932,012	48,948,888	•	46,946,586 37.384.134	100		9 6	•	98	77 61
3	COASTAL	9,028,014	•	9,028,014	37,361,124	•	36,503,000	2.37		036	,	0.36	79 77
8 8	BARRET	171,010,01		10,010,171	30,023,052		30,020,000	236	٠	0.29		0.29	78.26
8 8	SANCHEZ	8,672,306	•	1 532 786	25,034,033		25.446.428	0.48	,	0.25		0.25	78.51
٠ °	ABKAAG Octobbio	1,334,700		7 653 667	23 699 675	•	23.699.675	06:0	,	0.23	•	0.23	78.74
g g	AFXPA P	4 759 692		4 759 692	22,835,778	•	22,836,778	1.67	,	0.22	•	0.22	78.96
3 8	SANTAFF	6.417.031	•	8.417.031	22,387,490		22,387,490	2.29	٠	0.22		0.22	79.18
4	TESORO	5.694.254		5,594,254	20,434,116		20,434,116	2.19	•	0.20	,	0 20	79.38
3	WASHENG	4.650.792		4,650,792	19,726,870		19,726,870	1.89	ı	0.19		0.19	79 57
4	NORWEST	4,539,898	٠	4,539,898	19,457,813		19,457,813	1.87	•	0.19	٠	0.19	
1	SNYDER	4,787,066	•	4,787,066	19,191,170	,	19,191,170	5.00	•	0.19	,	0 10	79.95
Total	=	\$386,281,548	\$1,496,542,153	\$1,882,823,701	3,189,975,688	5,006,635,730	8,196,611,418					79.95	
Total	Total all Companies			i.			10,252,389,750						
5	out that the												

"." imply that the company was not one of the top 25 producers from federal lands either by royalty value or by gas production.

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Source: Minerala Management Service.

T).

¹ includes payments for gas and gas plant products, but not condensate or oil.

² includes production from Federal onstrore lands (including Indian lands), and Federal offshore waters.

Based on Top 25 Corporations by Royalty Value or by Gas Production 1998 Royalty Payments and Gas Production from Federal Lands Sorted by Total Gas Volume -- Column (6)

			Royalty Payments			Gas Volume ²		Implied Price	Price	Percen	it of Total Vol	Percent of Total Volume, All Companies	panies
	Company	Onshore	Offshore	Total	Onshore	Offshore	Total	Onshore	Offshore	Onshore	Offshore	Total	Cumulative
						(000)	特別のはない。	CONVE	- 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1	多时时	Parcent	218	
		(1)	(2)			(5)	(8) (4)+(5)	(1)*8′(4)	(8) (2)*6/(5)	©	(10)	(11)	(12) Cum. (11)
					300 000	201 101 103		£0.73	44 33	283 84	A 17 8	8 75 %	8.75
-	CHEVRON	\$22,424,844	\$129,173,612	\$101,086,456	250,801,465	304,707,443	642,434,382	0.72	5				15.47
Ni e	TEXACO	087,827,12	97,877,439	112 583 839	98 000 057	411,707,822	509,707,878	1.20	5	100	4.31	5.0	20.81
; -	MERIDIAN	57.988.335	51.808.927	109,777,262	321,281,371	153,205,348	474,496,719	4	2.03	3.36	1.60	4.97	25.78
ιų	EXXON	5,736,282	93,576,417	89,314,698	53,278,975	398,536,172	451,813,147	98.0	14.	0.56	4.17	5.	30.51
6	CONOCO	26,817,233	•	26,817,233	383,041,498	•	383,041,498	96.0	' ;	4. 0 10. 0	. 6	10. 6	34.52
7.	NON	3,151,706	71,919,012	75,070,718	50,471,629	321,366,996	371,636,624	0.50	3 3	0.53	96.6	9 0 0 0	4.86.4
6 0 (SHELL		85,196,806	95,196,806	. 200 20	348,341,886	348,341,886	1 28	<u> </u>	, £	8 3	5.65 7.75	2. 24 25. 25 25. 25
oi (VASTAR	5,516,080	55,685,962	220,202,16	57,978,12	68,446,138	217,224,513	8	1.1	4	0.72	2.21	46.54
⊉ ‡	MAKATHON	14,730,424	13,040,388	130,54	28.592.356	181,693,528	210,285,882	92	99.	000	96	2.20	48.74
. 5	PENNZON	2000	41,785,955	41.785.955		193,015,843	193,015,843	٠	1.30		2.02	2.02	50.76
<u>i</u> 6	SAMEDAN	•	53.646.588	53,646,588	٠	160,414,289	160,414,289	•	2.01		1.68	1.68	52.44
4	AT III	19,117,663		19,117,853	139,212,908	•	139,212,908	1.10	•	1.46	•	. .	53.88
5	NEWFIELD		41,783,545	41,783,545	•	137,439,102	137,439,102	•	1.82	•	4	4	55.33
6	CNG	3,311,869	35,440,100	38,751,969	14,848,761	114,799,559	129,648,320	1.78	85	0.16	1.20	.38	20.5
17.	UNPCFIC	4,168,042	23,276,360	27,444,402	41,805,165	79,982,578	121,787,743	0.80	1.75	4 (9.0	1.27	76.75
6	COASTAL	7,575,311	27,031,962	34,607,273	36,258,635	80,744,020	117,002,665	1.67	5.0	96.0 0	0.83	7 :	96.98
0 .	BPEXPLO		13,501,529	13,501,529	•	112,208,452	112,208,452	•	0.72	ı	- 5	- 5	8.5
8	MURPHY		25,963,842	25,963,842	•	96,863,083	96,963,083	•	19.		5 5	5 5	5 CF
7	KERR-MCGEE		23,158,688	23,158,668		36,807,786	90,007,790	. 680	<u> </u>	, 40	2, 5	8	8
8 8	ORYX 1	2,308,290	22,871,045	25,179,334	22,653,016 88 258 402	770'085'1/	94,043,636	1 16	76.	0.92	·	8 26	8
i z	ENTON OF	12,003,988		12,600,959	82 611 655	· •	82.611.655	122	•	98.0	•	98.0	65.17
į	FORCENERGY	210/2001	25,807,463	25,607,463		75,381,158	75,381,158		2.04	•	0.79	0.79	65.95
8	ELF	•	24,358,424	24,358,424	•	75,177,841	75,177,841	•	1.94		0.79	0.79	66.74
27.	APACHE	•	25,500,822	25,500,822	٠	72,659,873	72,659,873	' !	2.11	' [0.76	0.78	67.50
8 9	CROSST	5,839,550		5,839,550	72,106,581	•.	72,106,581	0.65		0.75		5 c	97.50
8	YATES 1	8,368,468		8,368,468	68,828,151		68,828,151	/a.o	' 9	0.72	٠ 5	2,2	86.30
8	ZLKHA	•	790,550,050	20,240,840	•	67 087 511	67.987.511	•	1 79		0.71	0.71	70.41
; E	ANADARKO		23.207.274	23.207.274		65,800,316	65,800,316	ţ	2.12	,	0.69	0.69	71.10
8	QUESTAR	12,787,284		12,787,284	61,453,546	•	91,453,546	1.66	•	0.64		0. 4	71.74
7	WALTER	•	19,158,850	19,158,850	•	59,812,252	59,812,252	' ;	1.92	' (0.63	0.63 63	72.37
8	BARRETT	10,625,590	•	10,625,590	50,620,714		50,620,714	89.		0.53		0.53	8.2
8	SANTAFE	6,878,733	•	6,876,733	29,453,242	•	29,453,242	1.87	•	0.31	•		23.20
37.	SNYDER	5,141,861	•	5,141,861	26,141,092	•	26,141,082) (C.		0.27		200	i i
8	MCMURRY	5,757,291		5,757,291	23,518,002	•	23,518,002	8 4	•	0.20	• •	5,50	27.57
<u>ģ</u>	WASHENG	4,625,016	•	4,625,016	001,022,22 70,000,687	,	20,0220,100	2 5		2.0	, 1	2.5	74.17
₹ ₹	SANCHEZ	3.482.854	•	3,487,854	13 180 571	, ,	13,180,571	2.11	,	0.14	•	0.14	74.30
, <u>1</u>	Total, these Companies	\$314,883,926	\$1,195,499,113	\$1,510,383,038	2,485,693,356	4,612,082,582	7,097,775,938					74.30 %	
1	Total Contraction						955 307 739						
5	, all Cumpatives												

"." imply that the company was not one of the top 25 producers from federal lands either by royalty value or by gas production.

Source: Minerals Management Service.

Includes payments for gas and gas plant products, but not condensate or oil.
Includes production from Federal onshore lands (including inclian lands), and Federal offshore waters.

Based on Top 25 Corporations by Royalty Value or by Gas Production Sorted by Total Gas Volume -- Column (6) 1999 Royalty Payments and Gas Production from Federal Lands

		-,	Royalty Payments			Ges Volume ²		Implied Price	Price	Percent o	Percent of 1998 Total Volume, All Companies	olume, All C	ompanies
	Company	Onshore	Offshore	Total	Onshore	Offshore	Total	Onshore Offshore	Offshore	Onshore	Offshore	Total	Cumulative
		では、これでは、10mmである。 では、これでは、10mmである。 では、10mmでは、10mmである。 10mmでは、10mmでは、10mmである。 10mmでは、10mmでは、10mmである。 10mmでは、10mmでは、10mmでは、10mmである。 10mmでは、10mmでは、10mmでは、10mmである。 10mmでは、1			1	(QIE)	は職事が必要が必要的	SMAR			(Persent)	2	· 秦河河东
		(1)	(2)	(3) (1)+(2)		(2)	(4)+(5)	(1)"8/(4)	(8) (2)*6/(5)	<u>6</u>	(10)	(11)	(12) Cum. (11)
-	CHEVRON	\$24 266 440	\$129 548 534	\$153,834,983	267.427.138	583,641,962	851,069,101	\$0.73	\$1.33	2.80 %	6.11 %	8.91 %	8.91 %
٠,	AMOCO	34,568,926	69,927,633	104.496.569	329,576,615	341,223,525	670,800,140	0.0	1.23	3.45	3.57	7.02	15.93
m	EXXON	6.704.071	106,674,383	112,278,454	52,604,481	458,925,468	511,529,947	1.02	1.38	0.55	4.80	5.36	21.29
¥	TEXACO	13,263,000	89,578,562	102,841,562	89,487,853	370,732,685	460,220,538	1.19	1.45	0.84	3.88	4.82	26.10
wi	CONOCO	27,968,196	12,748,467	40,706,663	358,915,936	70,201,945	429,117,880	0.62	1.00	3.76	0.73	4.40	30.80
10	MERIDIAN	68,390,856	32,907,640	101,298,496	305,526,914	89,346,734	394,873,648	£.7	2.21	3.20	0.9 4	4.13	3
~	SHELL	•	100,147,003	100,147,093	•	394,066,676	394,066,676	٠	1.52		4.13	4.13	38.86
80	NON	2,873,980	76,922,038	79,796,018	40,757,601	321,139,209	361,896,810	0.56	<u>+</u>	0.43 543	3.36	3.79	42.64
œ	VASTAR	6,440,375	76,373,174	82,813,549	37,120,442	261,012,859	298,133,301	1.30	1.78	0.30 0.30	2.73	3.12	45.77
5	MARATHON	16,371,240	17,313,248	33,664,486	146,897,869	107,281,730	256,179,599	0.88	76.0	2.5	1.12	2.68	48.45
=	PHILIP	22,822,634	•	22,822,534	236,635,795		236,636,795	0.77	•	2.48		2.48	50.93
12	CNC	3.802.718	42,735,927	46,538,645	15,586,144	165,621,678	181,207,822	188	1.55	0.1 6	1.73	1.90	52.82
5	MOBIL	6.829.145	30.017.961	36,847,107	32,310,831	148,024,783	180,335,614	38 .	1.22	9.3	1.56	1.89	54.71
4	KERR-MCGEE	•	46 190 125	46,190,125	•	166,829,723	166,829,723		1.66		1.75	1.75	56.48
Ţ	PENNZOL	•	37 810 774	37,810,774	•	163,970,059	163,970,069	•	1.38		1.72	1.72	58.17
9	NEWFIELD	•	55.979.140	55.979.140	•	157,982,658	157,982,658		2.13	•	1.65	59:	59.83
7	COASTAL	9.519.968	31,775,495	41,295,453	51,115,223	89,580,300	140,695,524	1.49	2.13	0.54	7 6.0	1.47	61.30
8	AMERADA		30,425,306	30,425,306	•	130,582,192	130,582,192	•	1.40	,	1.37	1.37	62.67
6	ENRON	14,254,696	17,711,449	31,966,145	71,114,570	50,313,300	121,427,870	1.60	2.11	0.74	0.53	1.27	63.94
8	BPEXPLO	•	12,102,857	12,102,867	•	118,181,162	118,181,162	,	0.61		1.24	1.24	65.18
2	SAMEDAN	•	40,461,666	40,461,666		117,543,765	117,543,765	•	2.07	•	1.23	1.23	66.41
22	SANTAFE	7,767,920	24,991,737	32,779,657	29,736,388	64,650,889	94,387,287	2.10	2.32	0.31	0.68	0.99	67.39
23	APACHE	•	35,850,514	35,850,514	•	93,098,260	93,096,260	٠	2.31		76.0	0.97	68.37
7	MURPHY	•	24,767,534	24,767,534	•	83,069,526	93,059,526	•	9.	• •	0.97	26.0	7. S
ĸ	DEVON	15,336,805	•	15,335,805	90,251,270	•	90,251,270	98.	• !	6:	. ;	60	27.07
5 9	UNPCFIC	3,331,420	18,186,817	21,498,237	35,298,705	47,303,136	82,601,841	0.76	2.30	0.37	0.50	900	5.5
27.	ZILKHA	• !	29,348,511	29,348,511	, ,	78,076,654	78,076,654	, [2.26	' }	0.82	0.82	. t
8	CROSST	6,938,987	. 00000	6,938,987	11,761,503	. 90 000 00	500,101,103	2.0	, ξ	6.79	, o	90	7 7 41
3	WALIER	, 000 0	OC7'WC0'77	0.24,034,230		191 '690'96	64 068 114	. 5	3 '	89	•	8	74.09
3 8	CHECTAB	15,101,28		15 101 836	87 777 986	•	62 772 866	8		990		990	74.75
; ;	FORCEMERGY	2001101	21 386 332	21.386.332		60.403.930	60,403,930	'	2.12	,	0.63	0.63	75.38
8	ANADARKO	•	18.215.717	18.215.717		50.979.756	50.979,756	,	2.14	•	0.53	0.53	75.92
7	BARRETT	10.659.301	1	10,659,301	42.783.863	•	42,783,863	1.99	•	0.45		0.45	76.36
100	BUTIWOO	358,668	•	358.668	35,544,857	•	35,544,857	90.0	1	0.37		0.37	76.74
8	MOMURRY	8.383,783	•	8,383,783	34,687,678	•	34,687,678	1.83	•	0.36	•	96.0	77.10
37	SNYDER1	6,606,668	٠	8,606,688	32,548,466	•	32,548,466	1.62	٠	0.34		0.34	1.17
8	ABRAXAS	1,716,106	•	1,716,108	21,457,841		21,457,841	9.0	٠	0.22		0.22	77.66
8	WASHENG	5,411,127	•	5,411,127	20,916,168	•	20,916,168	2.07	•	0.22		0.22	77.88
å.	KOCH	2,964,028	٠	2,964,028	19,741,231	•	19,741,231	1.20	•	0.21	•	0.21	78.09
÷	MERITEN	3,368,325		3,368,325	14,063,950		14,053,950	1.92	1	0.15		0.15	78.24
Total	Total, these Companies	\$354,894,339	\$1,251,032,872	\$1,605,927,211	2,613,600,312	4,859,843,732	7,473,444,044					4 77.8/	

Total, all Companies 1998 Total, all Companies³

"." imply that the company was not one of the top 25 producers from federal lands either by royalty value or by gas production.

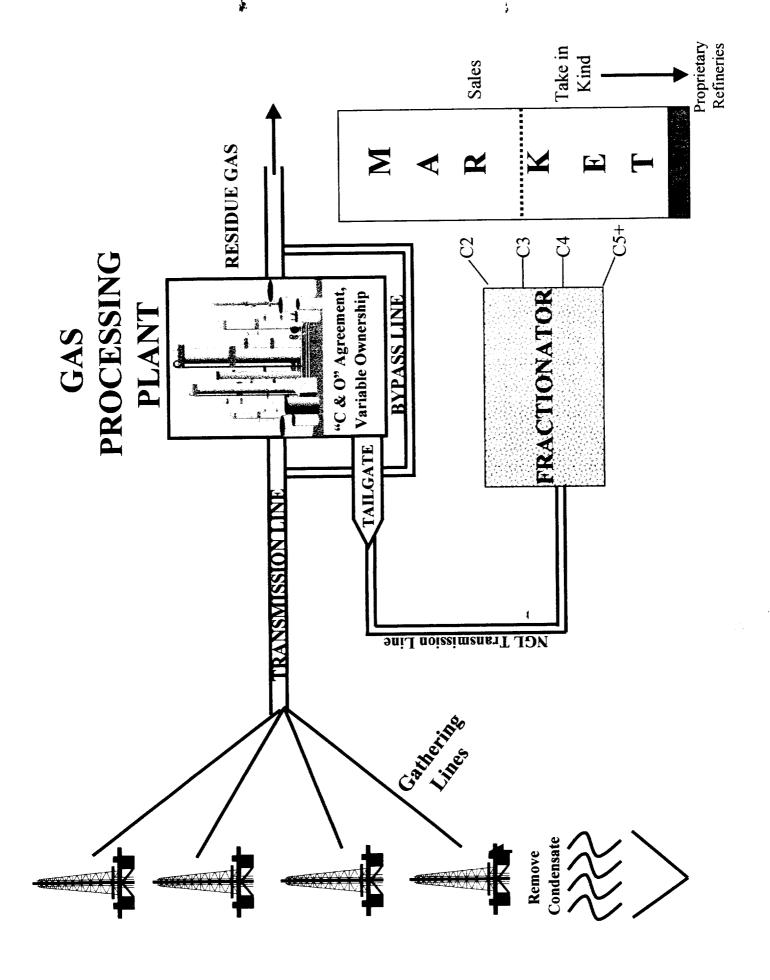
9,552,307,739

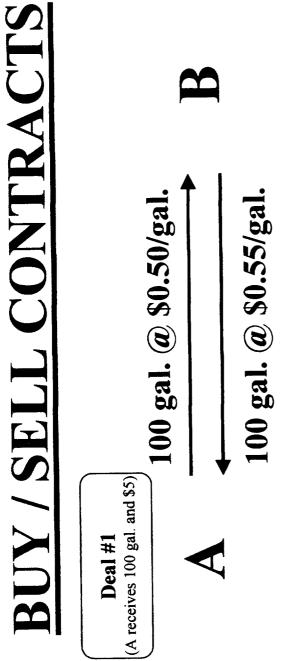
¹ includes payments for gas and gas plant products, but not condensate or oil.

² includes production from Faderal onshore lands (including indian lands), and Federal offshore waters.

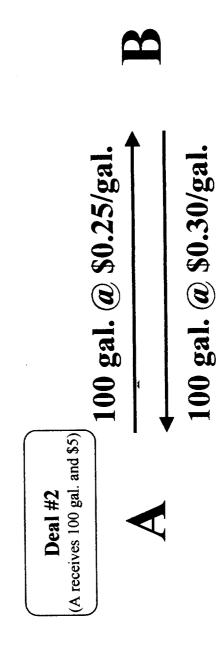
³ Date for 1999 not yet evallable.

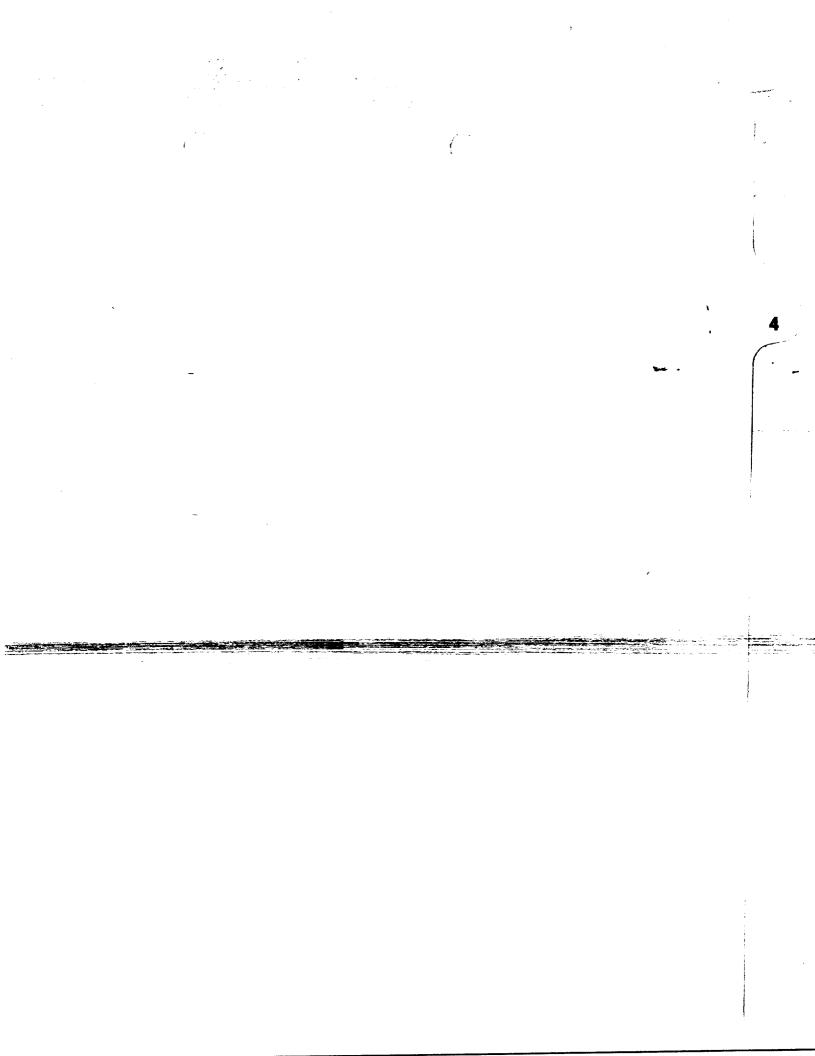
Source: Minerals Management Service





Economically same as...

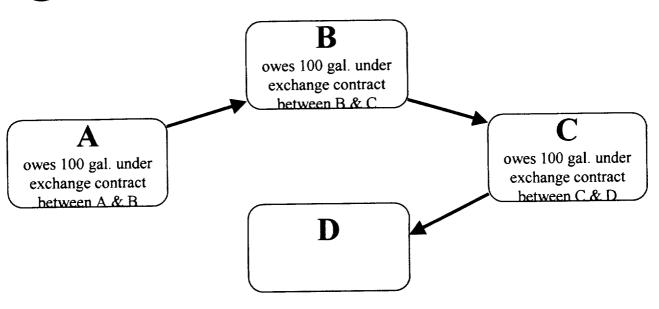




EXCHANGE BALANCING

(Simple Hypothetical)





Exchange Balancing Between A,B,C & D

